

Objective The aim of the study was to detect the prevalence of obesity in teenagers, the presence of the complications of the disease and alimentation pattern.

Material and method We had studied 162 teenagers from “Gr. Antipa” collegium, Brasov. the protocol of the study consist in clinical examination, body mass index calculoation (BMI), and a questionair regarding alimentation and phisical exercises.

Results In our study cohort 102 subjects (62.96%) had BMI on the 95th percentiles for agen and sex, 18 (11.11%) on the 97th percentiles and 7 (4.3%) on the 99th percentiles. 152 (93.82%) children had had alimentation disorders(sweets, soda, chips, fast-food almost dayly and fresh fruits ocasionaly). 110 children (67.90%) had a sedentary life (TV, PC, no physical exercises). The main complications detected were hypertension (27%), hypercholesterolemia (50%), diabetes mellitus type 2 (8%)and secondary amenohrea (6%).

Conclusions Overweight and obesity is a reality in teenager cohort. More, there are present complications of the disease even in childhood. The main cause of the obesity is “life style” which include alimentation disorders and poor physical exercises. All the efforts should be made in education of the adolescents for the prevention of the obesity because an obese child shall became an obese young adult with degenerative cardiovascular pathology.

1453

USING BIA TO EVALUATE WEIGHT STATUS COMPARED TO BMI IN IRAINIAN CHILDREN WHIT AUTISM SPECTRUM DISORDERS

doi:10.1136/archdischild-2012-302724.1453

¹H Salehi, ¹S Shahmohammadlu, ²M Mahmoudi, ¹K Djafarian. ¹Department of Nutrition and Biochemistry; ²Department of Biostatisticsand Epidemiology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran

Background and Aims Body composition is more important than body weight and body fat is a good guideline used to evaluate health Status better than sole weight. The aim of this study was to compare BIA and BMI to evaluate body weight status in autistic children and adolescents males in Iran.

Methods Eighty-one children and adolescents aged 7–13 years old were selected randomly from 4 autism-specific schools in Tehran in 2011. Body composition of children was measured using BIA.

Results The findings revealed that on the basis of body mass index(BMI), 41.9% of children were normal weight (5th< BMI< 85th), but 16% were overweight (85th< BMI< 95th), 27.1% obese (BMI>95th) and 14.8% underweight (BMI< 5th), respectively. Based on percent body fat (PBF), 76.5% of children were normal body fat (5th< PBF < 85th), 3.7% of children were under the 5th percentile, 12.3% were overweight (85th< PBF< 95th), and 7.4% were above the 95 percentiles.

Conclusions Although using BMI is simple and easy method for evaluating body weight status, measuring body fat by BIA is another alternative which give better picture of body composition in different health settings.

1454

IMPACT OF A CHAM JAM INTERVENTION ON PHYSICAL FITNESS IN ELEMENTARY SCHOOL STUDENTS

doi:10.1136/archdischild-2012-302724.1454

M Reznik, PO Ozuah. *Pediatrics, Children's Hospital at Montefiore, Albert Einstein College of Medicine, Bronx, NY, USA*

Background and Aims CHAM JAM, a classroom-based physical activity intervention, has been effective in increasing physical activity levels in elementary school students. The objective if this study was to determine the impact of CHAM JAM on physical fitness.

Design and methods A cluster-randomized wait-listed controlled study at 6 Bronx, NY elementary schools. Two schools received CHAM JAM. We randomly selected a subset of 3rd grade students from intervention and control schools to measure physical fitness. Physical fitness testing included heart rate (HR) response to sub-maximal exercise assessed with a modified step test at baseline and 3-months post-intervention. Students stepped up and down on step of calculated height for 3 minutes at a step cadence of 22 ascents/minute. We measured HR pre-exercise, at peak exercise, and at 1-, 2-, and 3-min recovery period. Hierarchical linear models were used to evaluate differences in mean HR between and within the groups. Models controlled for gender, age, and BMI.

Results A total of 378 students participated (intervention, 176; control, 202). Between-group difference in HR change revealed that intervention group achieved significantly greater decrease in HR than control group.

Abstract 1454 Table 1 Adjusted differences in HR between groups

Outcome	Difference Estimate	SE	p value
HR pre-exercise	-4.89	1.25	<0.0001
HR peak	-3.67	1.76	<0.0375
HR 1 min	-4.16	1.48	<0.0052
HR 2 min	-4.95	1.32	<0.0002
HR 3 min	-5.21	1.29	<0.0001

Conclusions The CHAM JAM intervention improved physical fitness.

1455

PREVENTION OF CORONARY HEART DISEASE RISK FACTORS IN CHILDREN - THE ROLE OF HEALTHY NUTRITION

doi:10.1136/archdischild-2012-302724.1455

¹M Kelmendi, ²R Bejiqi, ²R Retkoceri, ²A Batalli-Kepuska, ²H Bejiqi. ¹Cardiology; ²University Children's Hospital, Prishtina, Kosovo

Coronary heart disease (CHD) is the commonest cause of morbidity and mortality worldwide. Our country, as a developing one is facing also with many, “new fashioned” diseases, which are becoming epidemic in developed world, such as: obesity, diabetes mellitus, hypercholesterolemia, stress and unhealthy diet.

Objective The aim of this study is

1. To present food patterns in schoolchildren in our region and
2. To stress the role of healthy nutrition in the prevention of CHD.

Methods Two hundred schoolchildren, aged from 7–15 years, examined at University Children's Hospital, are included in this study. They are selected at random and mostly suffer from respiratory infections, throat infections, rheumatic fever, etc. Except history, physical examination, laboratory and anthropometric measures, an questionnaire regarding to food habits was filled by all patients.

Results Of 200 examined children, there were 150 (75.0%)with normal weight (< 97 percentile), 36 (18.0%) underweight (< 3 percentile) and 14 (7.0%) overweight ore obese (>97 percentile). There were 10 (5.0%) children with dislypidaemia and 6 (3.0%) with hypertension. The questionnaires analysis revealed many unhealthy habits: 75.0% prefer processed and fast food, 85.0% sweetened fruit drinks and soda. On the other hand, the consumption of healthy food, such as: milk, honey, fruits, whole grains, vegetables, functional foods, fish etc is very low.

Conclusion This paper underlines the link between food and health, especially in children; they, as a very vulnerable segment of population are often “victims” of food industry which offer them: high content of salt, sugar, trans fat.