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 calculation (BMI), and a questionnaire regarding alimentation and phisical exercises.

Results In our study cohort 102 subjects (62.96%) had BMI on the 95th percentiles for age and sex, 18 (11.11%) on the 97th percentiles and 7 (4.3%) on the 99th percentiles. 152 (93.82%) had had alimentation disorders(sweets, soda, chips, fast-food almost daily and fresh fruits occasionally). 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 amenorrhoea (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 become an obese young adult with degenerative cardiovascular pathology.

Conclusions The CHAM JAM intervention improved physical fitness.

Abstract 1454 Table 1 Adjusted differences in HR between groups

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Difference Estimate</th>
<th>SE</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR pre-exercise</td>
<td>-4.89</td>
<td>1.25</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>HR peak</td>
<td>-3.67</td>
<td>1.76</td>
<td>&lt;0.0375</td>
</tr>
<tr>
<td>HR 1 min</td>
<td>-4.16</td>
<td>1.48</td>
<td>&lt;0.0052</td>
</tr>
<tr>
<td>HR 2 min</td>
<td>-4.95</td>
<td>1.32</td>
<td>&lt;0.0002</td>
</tr>
<tr>
<td>HR 3 min</td>
<td>-5.21</td>
<td>1.29</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

Conclusions The CHAM JAM intervention improved physical fitness.

1454 IMPACT OF A CHAM JAM INTERVENTION ON PHYSICAL FITNESS IN ELEMENTARY SCHOOL STUDENTS

doi:10.1136/archdischild-2012-302724.1454

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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 submaximal 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 1455 PREVENTION OF CORONARY HEART DISEASE RISK FACTORS IN CHILDREN - THE ROLE OF HEALTHY NUTRITION

doi:10.1136/archdischild-2012-302724.1455

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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 to present food patterns in schoolchildren in our region and 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%) overweight (≥97 percentile) and 14 (7.0%) overweight or obese (≥97 percentile). There were 10 (5.0%) children with dislipidemia 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.