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**Eating and Lifestyle Behaviors among
14-18 Years Old School - Age
Children, Vlore, May 2013, Albania**

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Eating and Lifestyle Behaviors among 14-18 Years Old School - Age Children, Vlore, May 2013, Albania

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Abstract

Prevalence of overweight in childhood and adolescence, food behaviors and incorrect lifestyles have increased drastically over the years. The purpose is to highlight the influence that nutrition and lifestyle behaviors have on BMI (Body Mass Index) in the context of life`s globalization. Objectives. To determine the prevalence of overweight and obesity and to identify risk factors (socioeconomic characteristics, eating habits, physical activity and lifestyle) associated with overweight and obesity in adolescents. This is a cross-sectional study of 199 adolescents in Vlora`s city High School. Selected variables were assessed via self-administered questionnaire. Participants were classified as either normal weight or overweight, according to international sex and age – specific BMI cutoff points. Results. Study`s population composition 63% girls (G) and 37% boys (B). The prevalence of overweight and obesity is higher in B than G, Overweight 18% B and 2% G, obese 11% B and 1% G. Overweight`s and obesity prevalence in all study participants, 8% and 5%. It is noticed that boys have a higher tendency for unhealthy nutritional and lifestyle behaviors. We can say that good behavior and lifestyle at the adolescents under study highlighted not clear touch from life`s globalization. Although the highest prevalence of overweight and obesity in boys, studied other variables should be considered within normal. As a conclusion, we can say that risk factors are essential to the health and quality of life. Education and health nutrition is not only the nurse`s role, but also a social intervention which aims to promote behavior broad, sustained and coherent with psycho-physical health of the individual.

Keywords: obesity, BMI, risk factors, nutritional behavior, lifestyle, school age

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Introduction

Prevalence of overweight and obesity in school-age children in Europe and worldwide is rising over the years (International Obesity Task Force [IOTF], 2005). A systematic review (Maria Del Mar Bibiloni et al, 2013) found that about 30% of American adolescents and 22%–25% of European adolescents (except the Czech Republic and Italian adolescent’s which showed a prevalence of 13.7% and 17.9%, respectively) were overweight or obese. The life’s globalization in Albania is associated with changes in social and family organization, reflected in eating habits in all ages like skipping breakfast consumption, higher consumption of sugar sweetened beverages, reduced consumption of fruits and vegetables, lack of physical activity, and consumption of fast food, in particularly in urban areas of the country (Spahija B, et al., 2012). The terms ‘overweight’ and ‘obesity’ describe weight ranges that are above what is medically accepted as healthy. Body Mass Index [BMI] is used to identify if a person is overweight or obese. The BMI for children and teens is calculated the same way as for adults, but is interpreted differently because of the body fat changes with age and the differences between boys and girls. (Barlow SE, 2007). Table 1 shows the child and adolescent weigh - status classification

Table 1

<i>BMI (Body Mass Index) =Weight/height²</i>
Underweight (< 5percentile) *
Normal BMI (5- 85 percentile) *
Overweight (>= 85 percentile) *
Obesity (>= 95 percentile) *

*Terminology based on: Barlow SE and the Expert Committee, 2007

Additionally, the close relationship between improper nutrition, obesity and the development of different chronic degenerative diseases such as cardiovascular diseases, tumors and diabetes is well known. These diseases have increased dramatically and presented an emergency for modern society with high economic and social costs (Wang YC, et al., 2011). World Health Organization [WHO] supports the fact that 80% of these diseases can be prevented if the risk factors are eliminated or minimized (Branca F, at al., 2007). To prevent these kinds of diseases we should begin by preventing obesity through physical exercise (Collins Ce, at al., 2006-2007; ADA 2006; Atlantis E, at al., 2006) and healthy nutrition (Belahsen R, & Rguibi M, 2006). The amount and intensity of exercise required to affect childhood obesity are still unclear, however, current recommendations for the general population of children and adolescents are an accumulation of at least 60 minutes of moderate activity per day (22 Dec 2009). Low fat foods (including whole grains, cereals, fruits, vegetables and salads) probably protect against weight gain, overweight, and obesity. (Management of Obesity, Feb 2010). Even if the

literature is ample regarding surveys and studies about overweight, obesity, dietary habits, physical activity and lifestyle behaviors among adolescents and all these topics are the focus of concern among health professionals worldwide (Barton M, 2010), in Albania studies regarding the problem of obesity in this age group are insufficient or totally lacking. Only this year Albania joined the survey HBSC [Health Behavior in School-aged Children] (AMJ, 2013) which I am referring to realize this study.

Purpose

The purpose of this study is to highlight the influence nutrition and lifestyle behaviors have on BMI (Body Mass Index) in school age children 14-18 years old in the context of life`s globalization in order to intervene with appropriate promotional programs for healthy nutrition and physical activity.

Methods and Samples

This is a cross sectional qualitative study. The sample is composed of 199 students 14-18 years olds (adolescents), 125 girls and 74 boys, class X-XII attending Ali Demi High School in Vlora city, during the month of May 2013. The data were collected via a self – administered questionnaire. The questionnaire was designed based on the study HBSC [Health Behavior in School-aged Children] of WHO [World Health Organization]. Several questions regarding eating behaviors, lifestyle, physical activity and demographic were included in questionnaire.

Statistical Analysis

The Epi info 7 software 7.1.3.10 was used for statistical calculation. Participants were classified as either normal weight or overweight, according to international sex and age – specific Body Mass Index cut - off points. The mass index data for boys were analyzed separately from the data for girls. The prevalence of overweight and obesity were calculated on the basis of the reference that was made by participants for weight and height. Descriptive statistics based on percentage analyses was used for the other data.

Results

- Study population composition: 37% Boys and 63% Girls.

Figure 1 shows that 97% of girls and 72% of boys in the study have normal BMI. 18% of boys and 2 % of girls are overweight and 11% of boys and 1% of girls are obese.

Figure 2 shows the prevalence of overweight and obesity in the entire sample (n=199). 87% of all students are with normal BMI, 8% are overweight and 5% are obese.

Figure 1. Overweight and Obesity Prevalence in Girls and Boys 14-18 Years Old, n=199

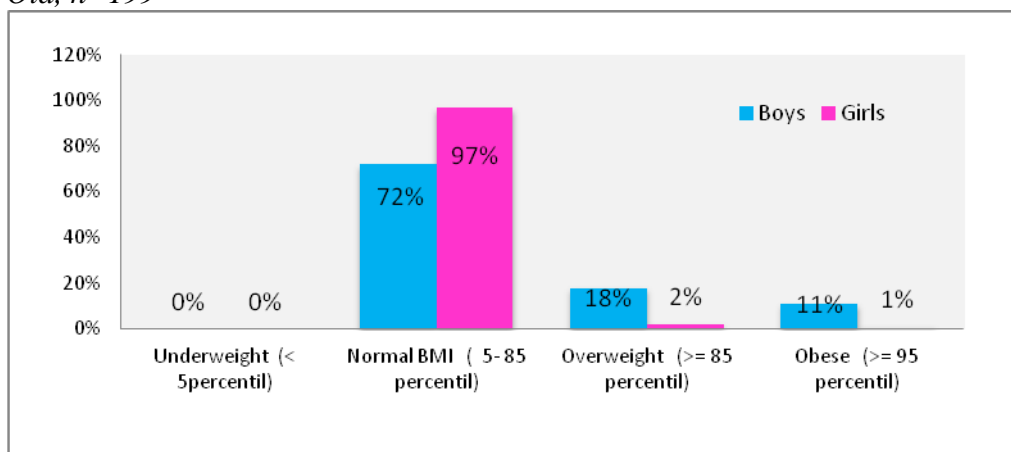


Figure 2. Overweight and Obesity Prevalence in all Students, n=199

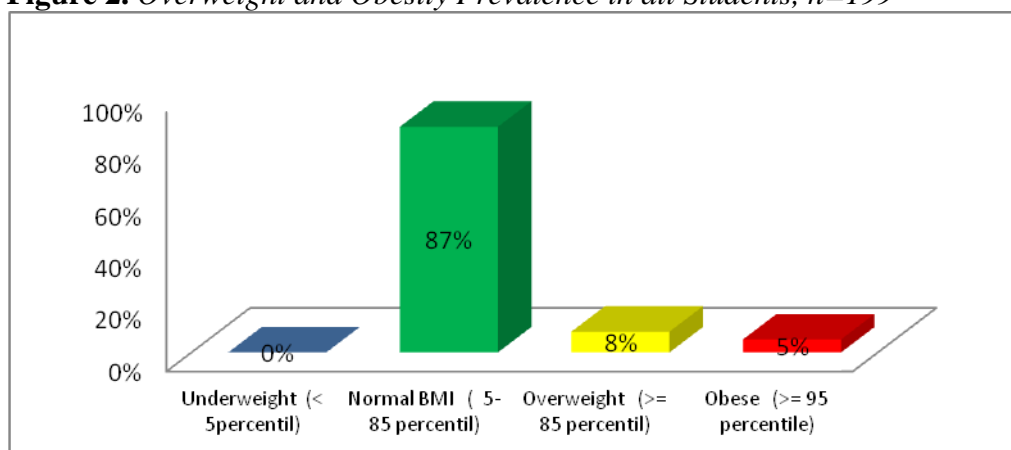


Table 2. Questions asked to Both Genders

Percentages of responses without differences in boys and girls

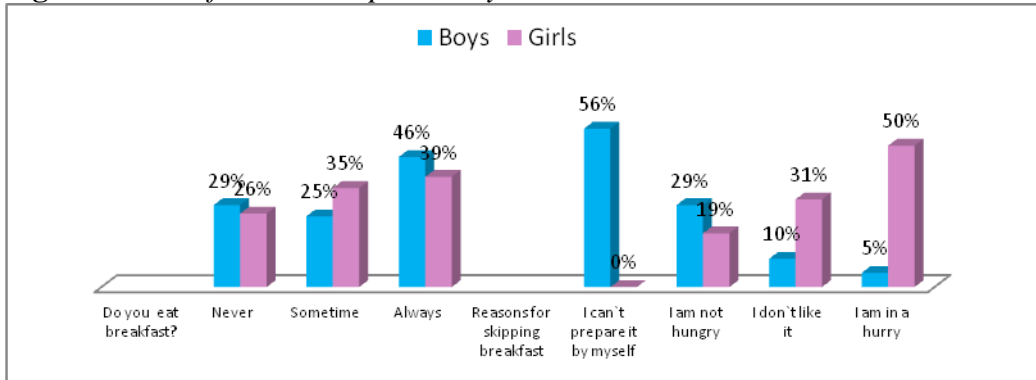
Survey questions	Mean of all Responses n=199		
	8-year education	Higher education	University
Parents` education *	8-year education	Higher education	University
	Mother	7.5%	49.5%
Father	10.5%	44.5%	45%
With whom do you usually eat?	Alone	In family	Other
	34%	63%	3%
	Where do you usually eat?	At home	At restaurant
99%	1%	0%	
How many sweets do you eat?	A few	A little	A lot
	3.5%	53%	43.5%

*The classification is based on the educational system in Albania

Table 2 summarizes questions without differences in boys and girls. Higher education and university are prevalent in the same percentages for mother and father’s educational level.

- 63% of students eat with the family, 99% of them eat at home.
- 43.5% of students had responded to eat a lot of sweets.

Figure 3. Breakfast Consumption, Boys n=74, Girls n=125



- 46% of boys and 39% of girls had responded that always eat breakfast.
- The main reason for skipping breakfast for 56% of boys was that they can't prepare it by themselves and for 50% of girls was the hurry.

Table 3. Questions with yes and no Responses

Questions	Boys, n=74	Girls, n=125	Boys, n=74	Girls, n=125
	Yes		No	
Do you eat what you don't like?	44%	23%	56%	77%
Does weight influence your humor?	19%	44%	81%	56%
Do you consider your lifestyle stressful?	15%	28%	85%	73%
Do you consume alcoholic drinks?	29%	10%	71%	90%
Do you smoke?	14%	2%	86%	98%
Do you suffer from insomnia?	26%	74%	19%	81%

From Table 3 we see that 44% of boys are more likely to eat what they don't like versus 23% of girls. Only 29% of boys and 10% of girls consume alcoholic drinks. 14% of boys and 2% of girls smoke. 28% of girls considered their lifestyle stressful. Also, 74% of girls report they suffer from insomnia.

Figure 4. How much time do you spend eating? Boys n= 74, Girls n=125

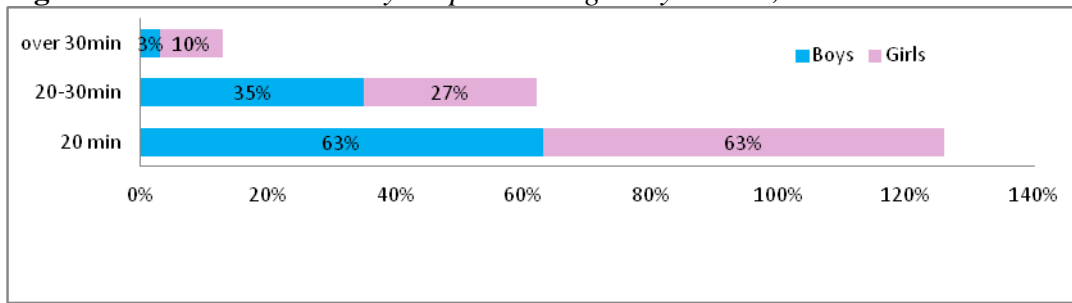


Figure 4 shows that 63% of girls and 63% of boys spend 20 minutes eating. Only 35% of boys and 27% of girls spend 20-30 minutes.

Figure 5. What do you do when you eat? Boys n= 74, Girls=125

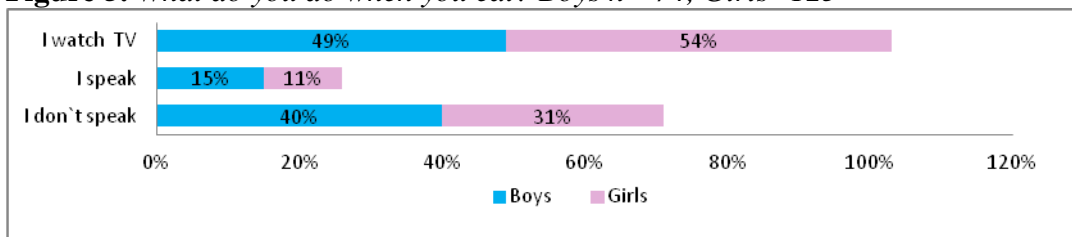


Figure 5 shows that 49% of boys and 54% of girls watch television during eating.

Figure 6. Fruit and vegetable consumption/day Boys n=74, Girls n=125

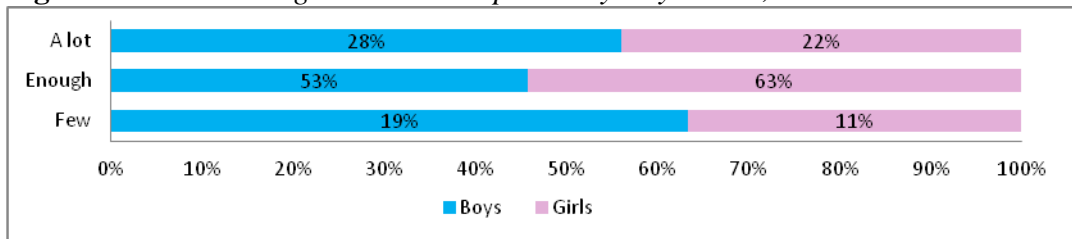
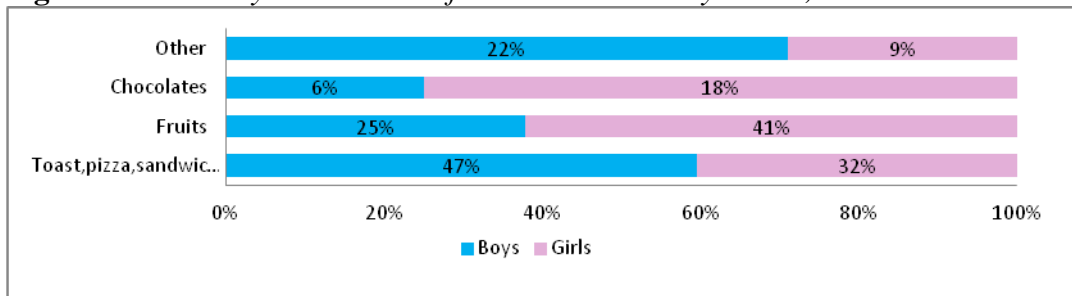


Figure 6 shows that 53% of boys and 63% of girls had responded they consume enough fruit and vegetable.

Figure 7. What do you eat as an Afternoon Snack? Boys n=74, Girls n=125



We can see from Figure 7 that 25% of boys and 41% of girls prefer fruits as an afternoon snack.

Figure 8. Attention to Calory Intake; Boys n=74, Girls n=125

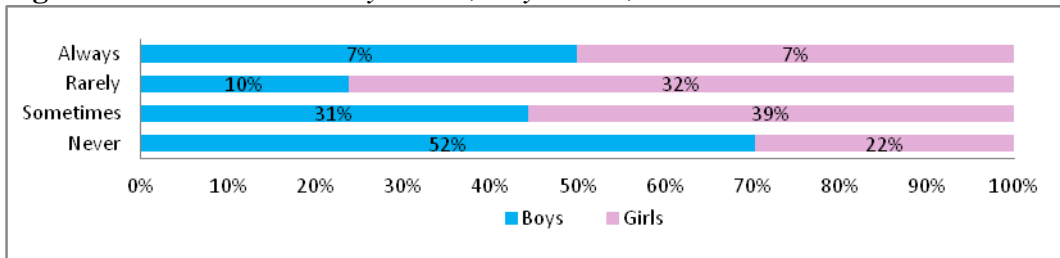


Figure 8 summarizes responses regarding the attention they pay to the calory intake. 52% of boys and 22% of girls had responded that they never pay attention to the calory intake.

Figure 9. Attention on Food Labels; Boys n=74, Girls n=125

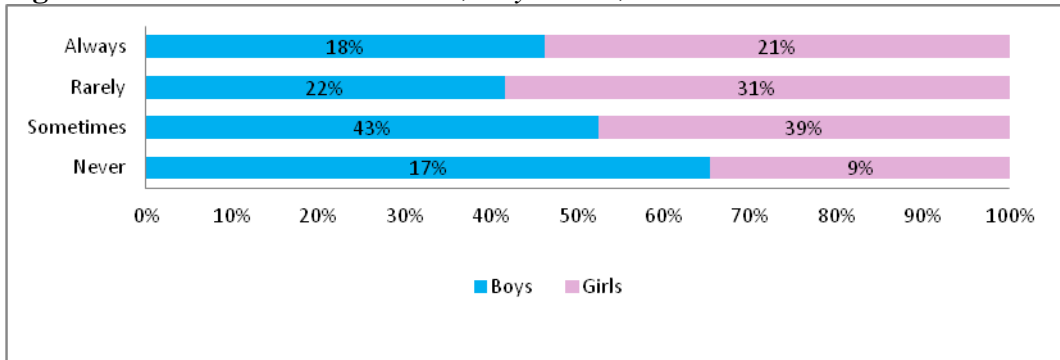


Figure 9 summarizes responses regarding the attention that adolescents pay on food labels. 17% of boys and 9% of girls had responded that they never pay attention on food labels. 22% of boys and 31% of girls had responded that they rarely pay attention.

Figure 10. Physical Activity; Boys n= 74;Girls n=125

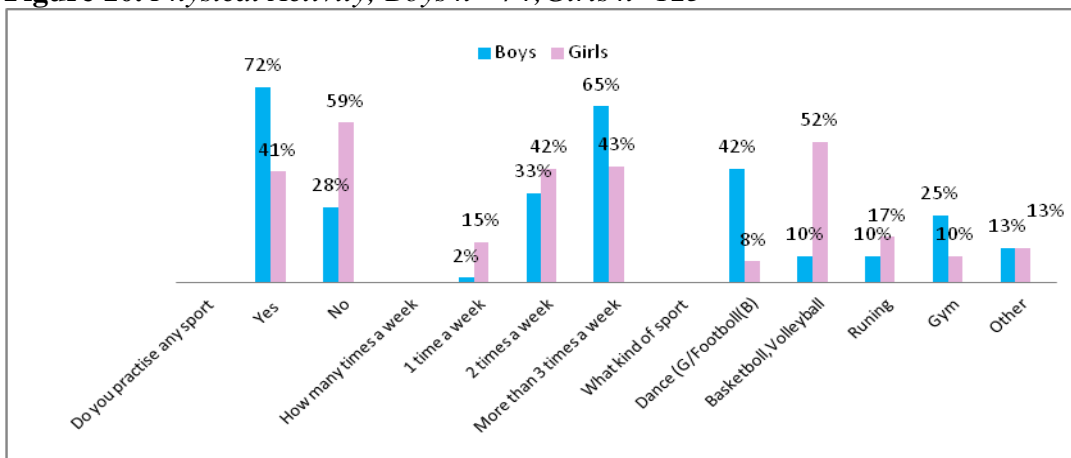


Figure 10 shows that 72% of boys and 59 % of girls practice sport. 65% of boys and 43% of girls responded to practice sport more than 3 times a week.

43% of boys prefer football and 52% of girls prefer basketball and volleyball.

Figure 11 shows the desired weight for the adolescents in the study and how many times per week they weigh. 52 % of girls want to weigh less than they currently do, and 42% of boys want to weigh more.

- 13% of boys and 3% of girls weigh themselves more than 3 times a week.

Figure 11. *The Desired Weight and How Many Times/Week Weighs; Boys n=74, Girls n=125*

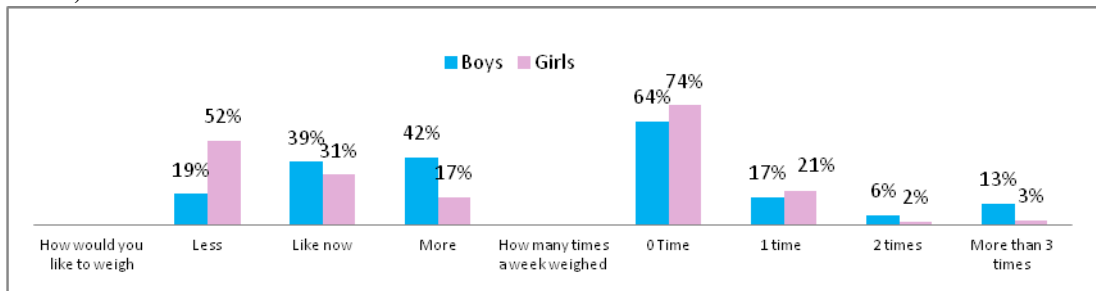
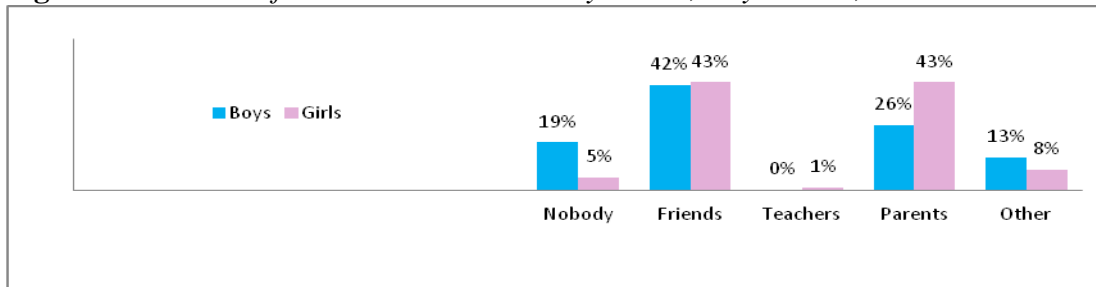


Figure 12. *In Case of Problems with who do you talk; Boys n= 74, Girls n=125*



- 42% of boys and 43% of girls talk to friends about their problems.
- 26% of boys and 43% of girls talk to parents.

Figure 13. *The Part of the Body they see more carefully in the Mirror; Boys n=74, Girls n=125*

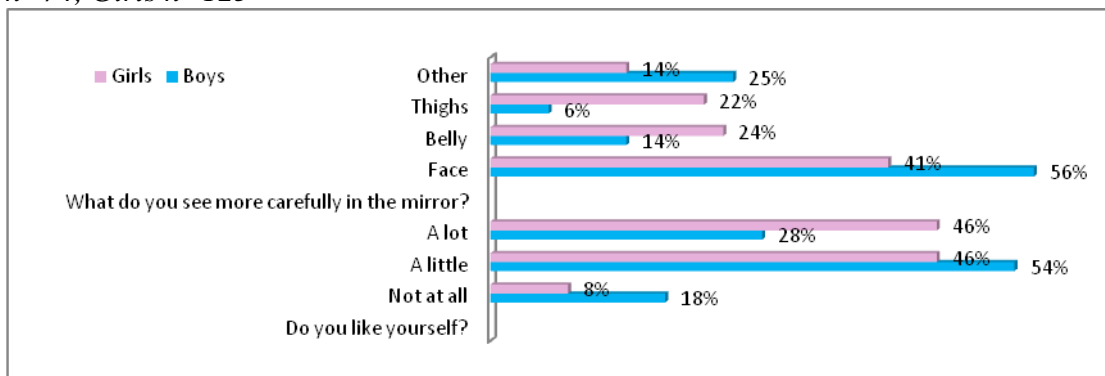
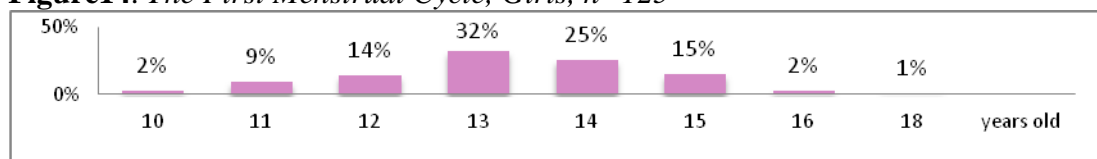


Figure14. *The First Menstrual Cycle, Girls, n=125*



- 32% of girls had responded that had their first menstrual cycle at age 13 years old.

Discussion

In our study the prevalence of overweight and obesity is higher in Boys (B) than Girls (G).

- Overweight 18% of boys and 2% of girls.
- Obese 11% of boys and 1% of girls.
- Overweight` s and obesity prevalence in all study participants, 8% and 5%.

Referring to international data, the results show low levels (Maria Del Mar Bibiloni et al, 2013).

The level of parents` education (Table 2) does not identify marked changes in both genders. In parents` couple, there were no differences in education. High educational level dominates. Parents with a high educational level have a protective role towards overweight and obesity (Loth KA 2013).

Table 2 shows that 63% of students in the study, eat with their family and 99% of them eat at home. The latter minimizes the risk of being victims of fast food. Referring literature, the circumstances in which breakfast and other meals are consumed are important. Research has shown that adolescents who frequently share meals with their families experience more positive health outcomes than others. Eating together as a family can have benefits for adolescent dietary intake and weight status (Larson at al, 2013). 53% of students report to consume few sweets.

Figure 3 shows that 46% of boys and 39% of girls had responded that they always eat breakfast. The regular breakfast consumption is considered a positive health benefit. The body needs energy after sleeping, so breakfast is an important meal and should contain 20% of total daily calories (Insel, 2010). The study conducted by (Thompson et al., 2010) examined meal skipping as a potential risk factor. 56% of boys in our study find *themselves skipping breakfast because* can` t prepare it by themselves and 50% of girls skip breakfast because they are in ar hurry. Regular breakfast consumption during adolescence provided considerable protection from obesity during adolescence and young adulthood (Merten MJ et al., 2009).

Table 3 includes different questions regarding the consumption of alcoholic drinks, smoking, stress and insomnia related to lifestyle. Boys

consume more alcoholic drinks than girls. Also, they smoke more than girls. 28% of girls considered their lifestyle, stressful and 74% of them report to suffer from insomnia. Obesity in childhood and adolescence is also associated with a number of adverse consequences for mental health. A systematic review of cohort studies found that a diet may potentially influence the risk of depression, although the evidence is not yet conclusive (Sanhueza C et al, 2013).

Figure 4 and 5 show that 63 % of the sample spent only 20 minutes eating and 49% of boys and 54% of girls watched television during eating. Television viewing is associated with higher consumption of foods containing more fats and sugars and a lower consumption of fruits and vegetables (Ramos E, at al, 2013).

Regarding fruit and vegetable consumption presented in Figure 6, 53% of boys and 63% of girls had responded that they consume sufficient amounts. For the afternoon snack presented in Figure 7, fruits were favorite for 25% of boys and 41% of girls. 47 % of boys and 32% of girls prefer toast, pizza, sandwiches and hamburger. High fruit and vegetable intake are associated with low dietary fat intake, and dietary fat is associated with both cancer and heart disease. (Ness AR at al, 1995).

Regarding the attention about calory intake in Figure 8, 52% of boys and 22% of girls had responded that they never pay attention to calory intake. Also the same situation is viewed in Figure 9, with the attention to food labels. 17% of boys and 9% of girls report they never pay attention to food labels. Although globalization is associated with the increased consumption of fast foods and the sugar-sweetened beverages contributing to rising obesity levels, few individuals can use nutrition labels to correctly identify calory content. (Vanderlee L et al, 2012).

Figure 10 shows the favorite sport that students practice and frequency (how many times per week). 72% of boys and 59 % of girls practice sport. 65% of boys and 43% of girls responded to practice sport more than 3 times a week. Football was the favourite sport for 43% of boys, and basketball and volleyball were favourite sports for 52% of girls. The health benefit of physical activity is evidenced in different studies (Collins Ce, et al., 2006-2007; ADA 2006; Atlantis E, et al., 2006).

In accordance with other studies (Cuadrado C, et al., 2000; Dumith Sde C, et al., 2012) in Figure 11, we see that 52 % of girls in our study want to weigh less because they are more dissatisfied with excess body weight, while 42% of adolescent boys want to weigh more because they are more dissatisfied with slimness.

Surprisingly, 13% of boys and 3% of girls weigh themselves more than 3 times a week.

Figure 12 shows that in case of problems, 42% of boys and 43% of girls talk to friends. 26% of boys and 43% of girls talk to their parents. It is noted there exists better communication between girls and parents. A cross-sectional survey conducted in different countries suggests that enhanced parent communication might contribute to less body weight dissatisfaction in girls.

Also, better communication with fathers can help to avoid body weight dissatisfaction in boys (Al Sabbah et al., 2009).

The part of the body that students see more carefully in the mirror is the face, 56% of boys and 41% of girls. 46% of girls and 28% of boys like themselves. The girls presented appear to be more satisfied with their appearance (Figure 13).

The first menstrual cycle in girls is within the norm (Figure14). The average age is 13 years old for 32% of girls. The findings add to the evidence that obesity in childhood is a risk factor for early puberty in girls (Currie C. et al, 2012; Kaplowitz P, 2006).

Limitations of the Study

- The cross-sectional nature of the study has its limitations.
- The BMI was calculated on the basis of reports that were given by participants for weight and height.
- The data analysis is based on a percentage analysis.
- The results cannot be generalized because of the small sample. It would be interesting to extend the study in other urban and rural high schools in the city of Vlora to have an overall picture of the situation.

Conclusions

The results of this study allow the following conclusions:

- Overweight and obesity prevalence in all study participants, 8% and 5%.
- Overweight and obesity are higher among boys. This should be considered within norm if we refer to international data.
- Food behaviors and lifestyle at the age of 14-18 years old participants in the study showed to not be affected by globalization. Although the highest prevalence of overweight and obesity in boys can be explained by the fact that in general, girls are more careful about their physical aspect.

The results of this study would contribute to guide health planners and operators to develop proper prevention and promotional programs for healthy eating and lifestyle among adolescents.

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