

## EATING BEHAVIOR DISORDERS OF FEMALE ADOLESCENTS

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### SUMMARY

**Background:** Adolescence is a period of significant physical, emotional and intellectual changes, as well as changes in social roles, relations and expectations.

**Objective:** Our objective was to inquire into eating attitudes among female adolescents.

**Subjects and method:** The sample consisted of female adolescents, age of 16-17, attending first grade Economic and Medical Secondary School pupils in Banja Luka, 2007. Survey questionnaire (16 questions) is a scale for self-rating of eating disorders designed by the author. Response rate was 389 out of 419 (92.8%).

**Results:** Eight point seven per cent of the female adolescents had a Body Mass Index (BMI) less than 18.5. More than half want to be thinner, while 1/3 of adolescents accepted themselves whether thin or obese. Forty-seven percent (47%) of adolescents exercise sometimes, 15.4% exercise often while 1/5 goes on a diet sometimes or regularly. About 43% adolescents are sometimes or often terrified about being overweight, while 60% sometimes or often lose weight. About 2/3 adolescents are not satisfied with their figure. One-half of the adolescents are terrified of increasing their weight.

There is a statistically significant relation between female adolescents with, and female adolescents without control in eating, in both schools ( $p < 0.05$ ).

**Discussion:** This research indicates the necessity of education of adolescents and developing prevention programs to help them to adopt healthier nutrition and lifestyle in early life.

**Conclusion:** There is a high level of discontent and dissatisfaction with their figure among adolescents. One-third (1/3) of adolescents accept themselves whether thin or obese, while about 43% adolescents are sometimes or often terrified about being overweight. One-half of adolescents are terrified by increase in weight.

**Key words:** female adolescents - eating attitudes - nutritional disorders

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### INTRODUCTION

Adolescence is a period of significant physical, emotional and intellectual changes, as well as changes in social roles, relations and expectations. It is also a growing period, which is characterized by changes in body proportion, size, weight and body image, new sleep patterns and needs, and development of sexuality and reproductive functions. These changes represent a normal transition from childhood to adulthood. Adolescents deal with these changes in a different ways.

In adolescence, many children began independently to select and prepare food. They spend less time at home, and are more liable to eat "fast food". Some of them will restrict their intake of food, while others will take a large amount of

food. Apart from inappropriate nutrition, they are physically inactive and spend a lot of time watching TV or playing games on their computers. Because of this lifestyle, eating disorders and obesity may appear.

At the same time, the media encourage children to consume high calorie food, while on the other hand promote obsession with thinness. Because of this, many girls and boys start diets at an earlier age than previous generations, to become thinner, which leads to nutritional disorder. Insufficient nutrition, physical inactivity and starvation also affect learning capacity. Children with malnutrition usually are tired, apathetic, and have poor concentration. This may damage their cognitive functions. At the same time society's obsession with a slim body, destroys them,

emotionally and socially. Overweight children are exposed to discrimination and underestimation by their peers, and also very often by their parents, teachers and the entire community. This situation decreases their learning capacity, self-confidence and active role in social activities.

In adolescence, girls are often preoccupied with their physical appearance; they are not satisfied with their weight and want to lose weight. Although the majority of attitudes and behavior related to losing weight are benign, their presence may bring important psychological and medical risk (Grigg 1996). Behavior related to eating disorder, increases predisposition to hazardous behavior, such as smoking, misuse of alcohol and psychoactive substances, depression and suicide (Krahn 1996).

Our purpose was to inquire into eating attitudes among female adolescents and the prevalence of eating disorders, such as anorexia nervosa and bulimia, among young female pupils.

## SUBJECTS AND METHOD

In order to determine eating attitudes, we used a survey among female adolescents, age of 16 - 17, in the first grade of Economic and Medical Secondary School in Banja Luka. The Survey questionnaire (16 questions) was a self-rating scale for eating disorders designed by the author. The sample consisted of girls, from all first grade classes at the selected Economic and Medical Secondary School in Banja Luka. The survey was

anonymous, and after explanation, the girls filled out the questionnaire during school class. The response rate was 389 (92.8%) out of 419 (total number of girls in both schools).

The data was statistically processed by the statistical software EpiInfo 2002, with statistical significance of 0.05. For representing of results, we used tables and charts.

## RESULTS

The majority of pupils in both schools have a BMI of 18.5-25 kg/m<sup>2</sup>. Index (BMI) <18.5 have 8.7% female adolescents. Nine point one percent of pupils in the Medical School have an Index (BMI) of <18.5, which is more than in the Economic School (8.5%), but without a statistically significant difference ( $p > 0.05$ ).

More than one-third (1/3) pupils accept themselves whether thin or obese, while 11% pupils do not consider this issue.

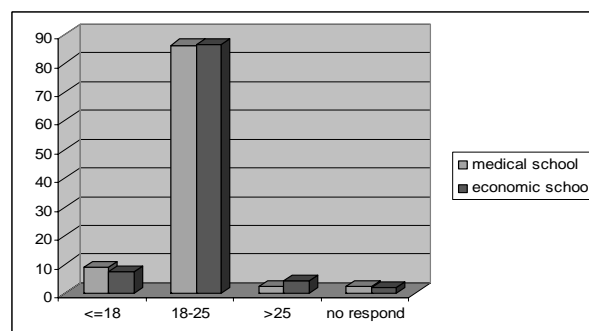


Figure 1. Body mass index-BMI

Table 1. Body mass index-BMI of pupils

Schools	(Body mass index-BMI) kg/m <sup>2</sup>								No answer		Total	
	<18.5		18.5-25		25.1-30		>30		n	%	n	%
	n	%	n	%	n	%	n	%				
Medical	16	9.1	152	86.4	4	2.3	0	-	4	2.3	176	100
Economic	18	8.5	182	85.4	9	4.2	1	0.5	3	1.4	213	100
Total	34	8.7	334	85.9	13	3.3	1	0.3	7	1.8	389	100

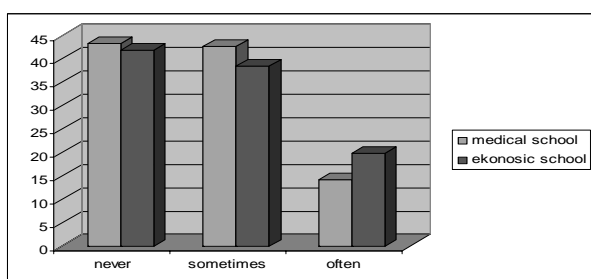
Table 2. Answers on question about thinness

I am	Schools				Total	
	Medical		Economic		N	%
	N	%	N	%		
Too thin	3	1.7	3	1.4	6	1.5
Slightly thin	21	11.9	30	14.1	51	13.1
Just fine	97	55.1	106	49.8	203	52.2
Slightly fat	33	18.8	47	22.1	80	20.6
Fat	4	2.3	2	0.9	6	1.5
I do not think about that	18	10.2	25	11.7	43	11.1
Total	176	100	213	100	389	100

**Table 3.** Answers on question about physical appearance

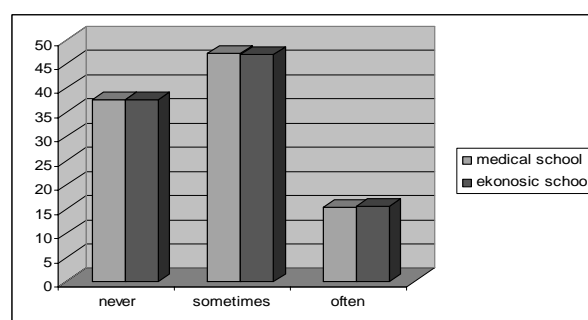
In my opinion	Schools				Total	
	Medical		Economic		N	%
	N	%	N	%		
I look very good	11	6.3	12	5.6	23	5.9
I look rather good	62	35.2	89	41.8	151	38.8
I look good	74	42.0	79	37.1	153	39.3
I do not look good	9	5.1	14	6.6	23	5.9
I do not look good at all	4	2.3	5	2.3	9	2.3
I do not think about that	16	9.1	13	6.1	29	7.5
No answer	-	-	1	0.5	1	0.3
Total	176	100	213	100	389	100

Further, more than 8% are not satisfied with their physical appearance, while 7.5% do not think about their physical appearance.



**Figure 2.** Medical and Economic schools

More than half of pupils want to be thinner, while 17.2% of them want that very much.

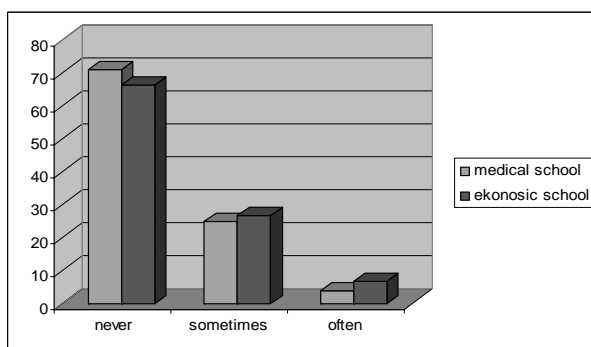


**Figure 3.** Answers about whether they exercise to avoid gaining in weight (Medical and Economic schools pupils)

Further, 47% of pupils sometimes exercise to avoid gaining in weight, while 15.4% of them exercise often.

**Table 4.** Answer on questions about dieting, losing weight and satisfaction with their physical appearance

Answers	I am on a diet		I loose weight		I am not satisfied with my physical appearance	
	N	%	N	%	N	%
Never	305	78.4	147	37.8	143	36.8
Sometimes	76	19.5	231	59.4	218	56.0
Other	8	2.0	9	2.3	27	6.9
No answer	-	-	2	0.5	1	0.3
Total	389	100	389	100	389	100



**Figure 4.** Answers about whether they cannot control their eating

There is a statistically significant relationship between pupils who never go on a diet, and other pupils, in both schools ( $p < 0.05$ ), while one-fifth (1/5) sometimes or often goes on a diet. About 60% of pupils sometimes or often loose weight. About two thirds (2/3) of pupils sometimes or often are not satisfied with their physical appearance.

A statistically significant number of pupils in both schools cannot control their eating ( $p < 0.05$ ).

**Table 5.** Answer on making themselves sick (to vomit)

I make myself sick (to vomit)	Schools				Total	
	Medical		Economic		N	%
	N	%	N	%		
Never	171	97.2	209	98.1	380	97.7
Sometimes	4	2.3	2	0.9	6	1.5
Often	1	0.6	2	0.9	3	0.7
Total	176	100	213	100	389	100

There is a statistically significant relationship between pupils who never make themselves sick (to vomit), and pupils who make themselves sick, in both schools ( $p < 0.05$ ).

## DISCUSSION

We find that 8.7% female adolescents have an index (BMI)  $< 18.5$ , while more than one-third (1/3) of pupils accept themselves whether they are thin or obese. More than half of the pupils in our study want to be thinner, while 17.2% of them want that very much. Forty seven per cent of pupils sometimes exercise to avoid gaining in weight, while 15.4% of them exercise often. About 60% of pupils sometimes or often loose weight. About two thirds (2/3) of pupils sometimes or often are not satisfied with their physical appearance.

Dr Andrew Refshauge, in June, 1997. reported about the concerning increase of eating disorders and their alarming incidence among young women, adolescents and children (Wetheim 1996). Dr Janice Russell showed that anorexia was the third major cause of morbidity among girls, age 15 to 17 year (Russell 1996). In our study there is serious concern among 8% of the pupils, while two-thirds are sometimes or often discontented.

Body changes and increase of body fat, which follows puberty of girls, could initiate the development of an eating disorder (Koskelainem 2001). Patton suggested that female adolescents on a strict diet are 18 times more likely to get an eating disorder over a six months period, than adolescents who are not on a diet (Patton 1999). Casper and Offer found that adolescents under a strict diet have a depressed mood, dissatisfaction with body appearance and symptoms of stress (Casper 1990). They also found that an important role of dissatisfaction with their body appearance and diet is associated with morbidity from eating disorders and problems with alcohol, among female adolescents (Garner 1979). In our study about two thirds (2/3) of pupils sometimes or often are not satisfied with their physical appearance, while one-

half of adolescents are terrified of increasing in weight. Social and cultural ideal of thinness have a strong influence on female adolescents (Stratton 1996). Dr Dianne Neumark-Sztainer assessed the prevalence of dieting and disordered eating among a sample of 6728 adolescents in grades 5 to 12 and reported that almost half of the girls (45%) reported that they had at some point been on a diet, compared with 20% of the boys. Disordered eating was reported by 13% of the girls and 7% of the boys. Strong correlates of these behaviors included overweight status, low self-esteem, depression, suicidal ideation, and substance use. Almost half of the adolescents (38%-53%) reported that a health care provider had at some point discussed nutrition or weight with them (Neumark-Sztainer 2000). In our study one-fifth (1/5) sometimes or often goes on a diet, while about 60% of pupils sometimes or often loose weight. In one study about 42% of first- to third-grade girls want to be thinner. About 55% of teenage girls and 25% of teenage boys reported dieting in the previous year, while over one-half of teenage girls and nearly one-third of teenage boys use unhealthy weight control behaviors such as skipping meals, fasting, smoking cigarettes, vomiting, and taking laxatives.

Preoccupation with a thin body and social pressure are important risk factors for the development of eating disorders in adolescents.

High prevalence of weight-related concerns suggests that appropriate interventions should be available to all young people. Special attention needs to be directed toward youth at the greatest risk for disordered eating behaviors, such as overweight youth, youth engaging in substance use behaviors, and youth with psychological concerns such as low self-esteem and depressive symptoms (Derenne 2006).

## CONCLUSION

One-third (1/3) of pupils accept themselves whether thin or obese, while about 43% adolescents are sometimes or often terrified about

being overweight. Furthermore, a Body Mass Index (BMI) <18.5 was found in 8.7% female adolescents, while 4% had a BMI > 25. In our sample 60% adolescents, sometimes or often, lose weight, 47% of adolescents exercise sometimes, and 15.4% exercise often to avoid gaining in weight. One-half adolescents are terrified with increasing in weight.

There is a high level of discontent and dissatisfaction with figure among adolescents.

This research indicates the necessity of education of adolescents to help them in adopting a healthier nutrition and lifestyle earlier life, and also the need of developing programs for prevention which will encourage young people to adopt healthy lifestyles and related behavior.

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