

# KNOWLEDGE, ATTITUDES AND AWARENESS OF SECONDARY SCHOOL STUDENTS ABOUT PHENOMENON OF MENTAL ANOREXIA AND MENTAL BULIMIA

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**Abstract:** *Eating disorders is the summary designation of one of the most frequent and serious psychosomatic diseases of mainly young girls with serious consequences for physical, psychic and social quality of health. This paper describes the level of awareness of the secondary school students in Tábor concerning the issue of the eating disorders established through the anonymous questionnaire investigation extended by the structured interview. Objective of the research survey was inter alia to evaluate answers to the questions, whether or not the students are informed at schools about the eating disorders, whether or not are they satisfied with their appearance, whether or not do they have any experience of the slimming diets, etc. The research also accommodated establishment of knowledge, comparison of knowledge and attitudes by sex as well as mapping of the information needs of secondary school students in the field of continuing/further education.*

**Key words:** *bulimia, anorexia, knowledge, attitudes*

## Introduction

Eating disorders belong among the adolescents to the most frequent and dangerous psychic diseases with serious somatic consequences. In the Czech Republic every twenty girl (i.e. 4 to 6 %) suffers from the eating disorder as estimated by the specialists. Occurrence of the eating disorders in boys and men is relatively rare, though it has grown recently. The established sick boys/men to the sick girls/women ratio is 1:10 up to 1:20 ratio. Therefore in the text below we will address the feminine, when speaking about sick persons.

## Determination of mental anorexia and mental bulimia

Mental anorexia is characterized mainly by deliberate starvation and reduction of body weight. We are not speaking about lack of appetite in the classic sense; appetite and hunger persist, mainly at the beginning, but they are denied and overcome. The ability to maintain a low weight becomes obsession for the sick person; even negligible deviation of the weight up is the reason for unbearable feeling of fatness, which fact complicates treatment of the sick girl materially. Typical loss of menstruation is one of physical symptoms; this symptom is not considered a reliable indicator of the girl taking hormonal contraception (Krch, 2002; Anabell [online], 2010).

Diagnostic criteria of the mental anorexia according to the International Classification of Diseases as shown by Krch (1999, 2002, 2005) and Papežová (2000):

- body weight is maintained at least 15 % below the assumed level or the BMI (Body Mass Index) is lower than 17.5; the adolescent patients fail to meet the awaited weight gain during their growth period (note: BMI calculation: load body weight in kg, divide by the square body height in m; the values ranging from 19-25 are considered standard),
- the patient himself causes weight loss by avoiding eating the meals leading to fattening and uses certain slimming agents, e.g. induced vomiting, diuretics, laxatives, excessive exercise,
- persisting fear of fatness, distorted body image, fear of further fattening,
- lack of interest in the partner and loss of sexual desire, loss of menstruation in women,
- if the disease outbursts before puberty, its symptoms are delayed or even interrupted; blocked growth and development of breast in girls, genitals are not developed in boys; when healed, the puberty will be completed normally in many cases, but menarché (the first menstruation) is delayed in girls.

Mental bulimia is the disorder characterized mainly by repeated bouts of overeating, in major cases after the effort to keep diet. Overeating is impulsive, cannot be controlled by own patient's will. The feeling of overeating is very relative, sometimes large quantities are consumed, but the patient very often eats only a little bit more than intended. This disorder shares many psychological features with anorexia; it is affected materially by the food for thoughts, fear of fattening and negative emotions (Papežová, 2003; Anabell [online], 2010).

Diagnostic criteria of the mental bulimia according to the International Classification of Diseases as shown by Krch (1999, 2003, 2005) and Papežová (2003):

- repeated bouts of overeating (at least twice a week for the time period of three months), during which large quantities of food are consumed for a short time period,
- uncontrollable appetite and desire for food, permanent and obsessive food for thoughts,
- the effort to suppress effect of eating, i.e. to get rid of the meal as soon as possible - the patients most frequently induce vomiting, overuse laxatives and anorectics or are on hunger strike,

- permanent fear of fattening; the episode of anorexia or a certain period of more intensive reduction in food occurs frequently .

## Material and methodology

The objective of the research investigation was to verify awareness and to evaluate knowledge of the respondents concerning the issue of eating disorders. The monitored set comprises 280 secondary school students from Tábör; we assume that it is a random selection from the basic set of all students of the relevant category.

The research was realized by applying the anonymous questionnaire investigation. The used questionnaire contained in total 20 items. The study was focused on establishment of the degree of awareness of the selected students about the eating disorders and on comparison of their knowledge and attitudes by sex.

The obtained data were converted into the electronic form and processed by the statistic programme SAS. The  $\chi^2$  method (examines independence of two qualitative variables) and the Cramer coefficient (measures degree of dependence, where 0 - means independence and the value 1 means absolute dependence) were applied for evaluation of differences.

More detailed characteristics of the monitored set is contained in the Table 1 below.

**Table No. 1** Characteristics of the monitored set

	Boys	Girls	Total
Medical School	1	37	38
Secondary school of business, services and handicrafts and Language School with the licence of the State Language Examination	18	34	52
Secondary School of Agriculture	11	30	41
Business College	9	38	47
College of Mechanical and Civil Engineering	46	3	49
Pierr de Coubertin High School	30	23	53
Students in total	<b>115</b>	<b>165</b>	<b>280</b>

## Results of research

The results are presented in the tabular form accompanied by comments. Where statistical significance between the groups of selected features was found, such significance is commented.

With respect to restricted scope of the paper we present only the chosen results.

**Table No. 2 Survey of responses to the question: *Do you think that a slim figure is important for your successful professional life?***

Answer	Total		Boys		Girls	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Yes, certainly	118	42,14%	15	13,04%	103	<b>62,43%</b>
No	143	51,07%	93	<b>80,87%</b>	50	30,30%
I do not know	19	6,79%	7	6,09%	12	7,27%
Total	280	100%	115	100%	165	100%

Based on the Table No. 2 we can state that for 51 % of respondents slim figure is not important for successful professional life. On the other side for 42 % of the total number of respondents slim figure is very important for successful professional life. There is the statistically significant difference between answers of boys and girls. Power dependence between the answer and the sex is 51.16 % (Cramer coefficient = 0.5116), dependence of the answer on sex is of medium power.

**Table No. 3 Survey of responses to the question: *Have you ever faced any unpleasant allusion or ridicule to your figure?***

Answer	Total		Boys		Girls	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Yes	152	54,29%	53	46,09%	99	<b>60%</b>
No	128	45,71%	62	<b>53,91%</b>	66	40%
Total	280	100%	115	100%	165	100%

Table No. 3 documents a minor difference between the respondents answering this question. 46 % of boys and 60 % of girls have faced unpleasant allusion or ridicule to the figure. The power dependence between the answers and the sex is 13,74 %, dependence on the sex is weak. We can say with the 99 % probability that answer to this question does not depend on the respondent's sex. In description of this situation the students most frequently state that they met abusive language: „... *fat guts, fatty, giant, fatso, gaunt, skeleton, anorexic, it is allegedly not possible to look at me*“. The girls have experienced allusion and ridicule mainly from their classmates. 12 % of respondents experienced this unpleasant situation at the primary school. 3 % of secondary school students can hear allusions to the figure even from their parents.

**Table No. 4 Survey of responses to the question: *Do you know what eating disorders are?***

Answer	Total		Boys		Girls	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Yes	188	67,14%	77	<b>66,96%</b>	111	<b>67,27%</b>
No	92	32,86%	38	33,04%	54	32,73%
Total	280	100%	115	100%	165	100%

Table No. 4 documents that 67 % of respondents know what the eating disorders are and show at least two diseases belonging among these disorders. The term eating disorders is unknown for 33 % of the respondents. Graphic presentation documents the minimum distinction between answers of boys and girls. Practically no difference was established in the answer “yes” (boys 66,96 %, girls 67,27 %) and in the answer „no“ (boys 33,04 %, girls 32,73 %). It was confirmed by the statistic test that at the 5% level of significance there is no dependence between response to the answer and the respondents’ sex.

**Table No. 5 Survey of responses to the question: *Have you met the topic in the secondary schoolwork dealing with the issue of eating disorders?***

Answer	Total		Boys		Girls	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Yes, in the subject	90	32,14%	12	10,43%	78	47,27%
No	190	67,86%	103	<b>89,57%</b>	87	<b>52,73%</b>
Total	280	100%	115	100%	165	100%

Only 32% of the respondents have met the issue of eating disorders in the secondary schoolwork. The students show only two subjects: namely civics and biology. With 95 % probability there is the dependence between responses to this question and the respondents’ sex. It means there is the statistically significant difference between answers of boys and girls. The dependence is of medium power (Cramer coefficient = 0,3881).

**Table No. 6 Survey of responses to the question: *Do you think that mass media (Internet, TV, magazines) can take part in appearance of the eating disorders?***

Answer	Total		Boys		Girls	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Yes, certainly...	264	94,29%	104	<b>90,43%</b>	160	<b>96,97%</b>
No, I do not know.	16	5,71%	11	9,57%	5	3,03%
Total	280	100%	115	100%	165	100%

94% of respondents have answered that mass media do affect occurrence of the eating disorders. Only 6 % of respondents answer “no” or “I do not know”. The evident similarity of answers of both the boys and girls follows from the survey of responses. Not a single response confirmed statistical significance.

**Table No. 7 Survey of responses to the question: *Do you know name of any organization addressing the issue of the eating disorders?***

Answer	Total		Boys		Girls	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
Yes	1	0,36%	0	0%	1	0,61%
No, I do not know	279	99,64%	115	<b>100%</b>	164	<b>99,39%</b>
Total	280	100%	115	100%	165	100%

The Table No. 7 supports unfavourable respondents' answers. Only a single girl from all 280 respondents answered the question positively - she knows the organization addressing issue of the eating disorders, namely the Civic Association Anabell. The information concerning the organizations addressing the issue of the eating disorders would be searched for on internet by 3 % of the total number of respondents.

## Discussion

The boys are rather satisfied with their appearance/figure than girls. On the other side the girls think more frequently that slim figure may affect whether or not they will be happy in their life and that the slim figure is very important for successful career development. Mainly the girls have faced unpleasant allusion or ridicule to their own figure or to the figure of their contemporaries. 8 % of students stated a very unpleasant reality - allusion to their figure by the parents.

Range of their ideal body weight can be determined by the majority of respondents. No significant differences were found between answers of boys and girls. The term Body Mass Index is not known for the majority of respondents.

67 % respondents were able to answer the question what are the eating disorders and what diseases are included in this group. No statistically significant differences were established by sex.

The parents speak about the eating disorders rather with girls. The respondents can acquire information about the eating disorders most frequently at school or on Internet. Only one third of respondents has met the issue of eating disorders within the scope of the secondary schoolwork. They state the subjects like civics and biology. Awareness of the eating disorders at the secondary school is very low.

The respondents have in general a lukewarm interest in scientific lectures focused on the eating disorders issue. The method of assistance and help, when somebody close is suspicious of the eating disorder, was chosen correctly by the majority of respondents. Only 2% of respondents answered "I do not know". The majority of respondents know consequences of the mental bulimia and mental anorexia. No differences by sex were established.

The question whether the mass media can take part in appearance of the eating disorders was answered "no" or "I do not know" by 6 % of respondents only. The other ones definitely think and affix their commentaries in the questionnaire that the mass media have a high impact on occurrence of these diseases. Advertisements promote rather the drugs assisting in slimming compared with fruits and vegetables that can be found in the promotional spots only rarely.

Responses to the answer, whether or not the students know any organisation addressing the issue of the eating disorders is shocking. Only one girl knows the Civic Association Anabell, the other ones do not know any organisation of his kind. Nine respondents would use Internet for search for the information concerning this issue.

We can assume that the occurrence rate of the eating disorders can be reduced when the students are informed adequately about occurrence and risks of these diseases. The eating disorders can be avoided by suitable actions at school.

## Conclusion

Issue of the eating disorders is very serious. Mental anorexia and bulimia belong among the psychiatric diseases which are connected with the highest death rate, compared with other psychiatric diagnoses. Insidiousness of these diseases consists in the fact that the patients do not admit the diagnosis, they are not sensitive to their state of health and do not apply the critical approach. The eating disorders arise as consequence of many factors and can be avoided, because the issue is well known. Treatment of the eating disorders takes a long time and the way back is not easy. The pedagogic staff plays an important role in mediating the information focused on the eating disorders and mainly on their prevention. The teachers should support the students to evaluate themselves on the basis of personality features, to strengthen their self-confidence with the objective to restrict manifestation of the self-destructive behaviour. The teacher must also familiarize the students with the fact that the beauty ideals of our days are distorted, each individual can be exceptional somehow. It is advisable to mediate the information about the eating disorders mainly through discussions with specialists.

## Literature

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# ZNALOSTI, POSTOJE A INFORMOVANOST STŘEDOŠKOLSKÝCH STUDENTŮ O FENOMÉNU MENTÁLNÍ ANOREXIE A MENTÁLNÍ BULIMIE

**Abstrakt:** Poruchy příjmu potravy je souhrnné označení pro jedno z nejčastějších a nejzávažnějších psychosomatických onemocnění zejména mladých dívek s těžkými důsledky na fyzickou, psychickou i sociální kvalitu zdraví. Příspěvek popisuje úroveň informovanosti studentů středních škol v Táboře o problematice poruch příjmu potravy, jež byla zjišťována anonymním dotazníkovým šetřením doplněným o strukturované interview. Cílem výzkumného šetření bylo mimo jiné vyhodnotit odpovědi na otázky, jsou-li studenti ve školách informováni o poruchách příjmu potravy, zda jsou spokojeni se svým vzhledem, mají-li zkušenosti s dietou za účelem snížení tělesné váhy, atd. Součástí výzkumu bylo zjištění vědomostí, srovnání znalostí a postojů dle pohlaví studentů, ale také zmapování informačních potřeb studentů středních škol v oblasti dalšího vzdělávání.

**Klíčová slova:** bulimie, anorexie, znalosti, postoje