

## ORIGINAL ARTICLE

## KNOWLEDGE AND ATTITUDES OF YOUNG PEOPLE IN THE FIELD OF EATING DISORDERS

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### ABSTRACT

**The aim:** To examine the level of knowledge and attitudes of high school students in the field of eating disorders.

**Materials and methods:** The study group consisted of students of a randomly selected village school (Jendrzewo) and the municipal school (Siemianowice Śląskie). The study was conducted using an original survey consisting of 10 questions regarding the knowledge and attitudes of respondents towards eating disorders.

**Results:** A total of 313 students (242 female and 71 male) participated in the study. 44.7% of respondents from the village school and 56.6% of respondents from the municipal school were dissatisfied with their appearance; 21.6% and 27.9%, respectively, were currently using the diet. 68% of students from Jendrzewo and 53.3% of students from Siemianowice Śląskie made an attempt to reduce body weight at least once in their lives. 55.1% of the village school respondents and 47.4% of the municipal school respondents noticed the influence of the media on the desire to achieve a slim figure. Girls showed better knowledge about eating disorders than boys ( $p = 0.008$ ). Over 70% of students of both surveyed high schools believed that people with eating disorders are unable to cope with the disease on their own. Only 6.7% of students of the municipal school and 12.92% of students of the village school gave themselves a very good grade.

**Conclusions:** There is a need to educate young people more broadly about eating disorders and the risk factors for their occurrence.

**KEY WORDS:** knowledge, attitude, eating disorders

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### INTRODUCTION

Eating disorders are a range of psychological conditions that cause unhealthy eating habits to develop. They might start with an obsession with food, body weight, or body shape [1]. According to the Diagnostic and Statistical Manual of Mental Disorders-5th Edition (DSM-V), there are: bulimia nervosa (BN), anorexia nervosa (AN), malnutrition (pica), eating disorders with episodes of uncontrolled overeating (Binge Eating Disorder- BED) and other eating disorders (Other Specified Feeding or Eating Disorder- OSFED) [2].

International Statistical Classification of Diseases and Related Health Problems-ICD-10) developed by the World Health Organization (WHO) distinguishes: anorexia nervosa, atypical anorexia nervosa, bulimia nervosa, atypical bulimia nervosa, overeating associated with other psychological factors, vomiting associated with other psychological factors, other eating disorders and unspecified eating disorders [3]. Specific eating disorders include

anorexia nervosa and bulimia nervosa, non-specific ones - compulsive overeating, night eating syndrome, bigorexia, orthorexia, obesity [4].

According to the latest statistics, it is assumed that at least one in a hundred people in Europe suffers from anorexia, in the case of bulimia it is three in a hundred. Research reports that every fourth – fifth Polish high school student has problems with at least one of the above eating disorders [5].

Anorexia nervosa has a multifaceted clinical picture and weight loss due to incorrect body perception. It is most common in teenage girls (40%) and is characterized by high mortality (about 18%) [6, 7]. There is still no clear-cut factor predisposing to anorexia.

The American Psychiatric Association (APA) identifies following diagnostic criteria for anorexia nervosa:

1. reduction of energy supply from food in relation to the demand;
2. unflagging fear of weight gain;
3. disturbed perception of one's own body shape.

Currently, there are two types of anorexia nervosa. The first one is the so-called restrictive form, which is strongly correlated with the use of restrictive slimming diets, fasting and/or increased physical activity. The second type is associated with binge eating or purging attacks [8].

Bulimia nervosa is an eating disorder characterized by bouts of binge eating which are followed by so-called compensatory behaviors [9, 10]. According to the ICD-10, bulimia is characterized by the following symptoms:

1. eating becomes the most important area of life, the patient experiences periodic bouts of binge eating during which large amounts of food are consumed;
2. after episodes of overeating, compensatory measures are taken (inducing vomiting, taking laxatives or diuretics, following a low-calorie diet);
3. the patient is afraid of gaining weight and focuses on the current body weight.

On the other hand, the American Psychiatric Association (APA) distinguishes the following diagnostic criteria for bulimia nervosa:

1. the patient has repeated bouts of binge eating accompanied by at least one of the following features:
  - a. eating in a given period of time an amount of food that exceeds the portion eaten by healthy people at the same time,
  - b. lack of control over the consumed food during an episode of binge eating;
2. repeated compensatory behavior (induction of vomiting, overuse of laxatives or excessive physical activity or fasting) in order to prevent weight gain;
3. binge eating and compensatory episodes occur at least once a week within three months; 4. the patient's self-esteem remains focused on the figure and body weight;
5. the disorder does not appear only during episodes of anorexia nervosa [11, 12].

The body weight of people suffering from bulimia nervosa usually remains close to the predicted value, therefore bulimia may remain hidden from the immediate surrounding for a long time [13]. Sufferers from bulimia are usually impulsive, emotionally unstable and with lowered self-esteem [14].

Orthorexia (orthorexia nervosa - ON) is a relatively new phenomenon, described as fixation on eating healthy food [11, 15-18]. In advanced stages of the disease, metabolic acidosis and muscular dystrophy may develop [19]. Until now, orthorexia nervosa is not recognized as an eating disorder by the American Psychiatric Association, and so is not mentioned as an official diagnosis in the widely used Diagnostic and Statistical Manual of Mental Disorders (DSM).

## THE AIM

The aim of this study was to examine the level of knowledge and attitudes of high school students in the field of eating disorders.

## MATERIALS AND METHODS

The study group consisted of students of a randomly selected village school (1<sup>st</sup> Secondary School of General Education named after Mikołaj Rej in Jędrzejów) and municipal school

(Secondary School of General Education named after Jędrzej Śniadecki in Siemianowice Śląskie), aged from 14 to 17 years.

The study was conducted using an original survey consisting of 10 questions regarding the knowledge and attitudes of respondents towards eating disorders. The survey was conducted using the PAPI (Paper and Pencil Interview) method in the period from 01/01/2020 to 28/02/2020 among people who gave their consent.

The obtained results were statistically analyzed with the use of Microsoft Office Excel 2007 and Statistica 13.1. The following tests were used: Pearson's test, chi square ( $\chi^2$ ) and the Cramer V (Vc) and Yul ( $\phi$ ) coefficients. Statistical significance was determined at the level of  $p < 0.05$ .

## RESULTS

A total of 313 respondents (242 female and 71 male) participated in the study, including 208 students (162 female, 46 male) from the village school and 105 students (80 female, 25 male) from the municipal school.

The first question in the survey was about being satisfied with own appearance. 44.7% of the respondents from the village school and 56.6% of the respondents from the municipal school were dissatisfied with their appearance, and 21.6% and 27.9% of the respondents were currently using the diet. A statistically significant correlation was found between the age of the respondents, but not the gender, and the degree of satisfaction with their appearance ( $p = 0.01$ ). The older ones were more satisfied with their appearance.

68% of the respondents from Jędrzejów and 53.3% of the respondents from Siemianowice Śląskie made an attempt to reduce body weight at least once in their lives ( $p = 0.02$ ). Older students were more often on the diet than the younger ones ( $p = 0.001$ ).

55.1% of the village school respondents and 47.4% of the municipal school respondents noticed the influence of the media on the desire to achieve a slim figure. This concerned more often women than men ( $p = 0.003$ ).

The next questions in the survey concerned the knowledge of the most common eating disorders. The results are summarized in Tables I-III. Girls showed better knowledge about eating disorders than boys ( $p = 0.008$ ).

Over 70% of students of both surveyed high schools believed that people with eating disorders are unable to cope with the disease on their own (Fig. 1).

Less than 50% of the respondents from both schools assessed their knowledge about eating disorders as good, and a similar percentage - as satisfactory. Only 6.7% of students of the municipal school and 12.92% of students of the village school gave themselves a very good grade (Fig. 2).

Over 60% of respondents in both institutions believed that there should be more classes about eating disorders at school (Fig. 3).

## DISCUSSION

Eating disorders are a current mental health problem. According to the latest reports, girls between the ages of 14 and 16 are most at risk, however, eating disorders are often diagnosed also among men and boys in whom they have a

**Table I.** Answers to the question about anorexia.

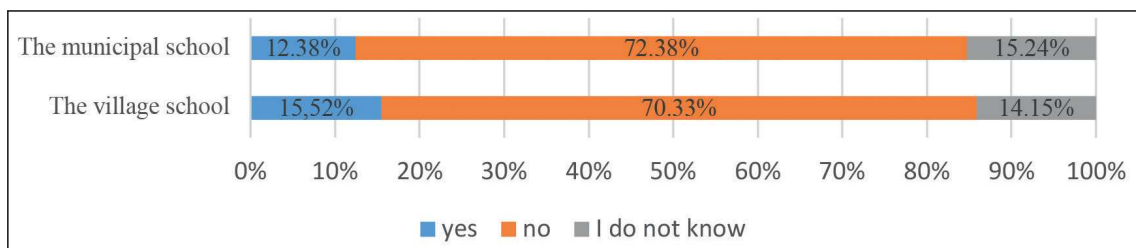
Responders	What do you think anorexia is?			
	A way to get a slim figure	Eating disorder (excessive weight loss)	Eating disorder (compensatory behavior)	I do not know
The village school in Jedrzejow	4.31%	87.08%	4.79%	3.82%
The municipal school in Siemianowice Slaskie	4.77%	95.23%	0%	0%

**Table II.** Answers to the question about bulimia.

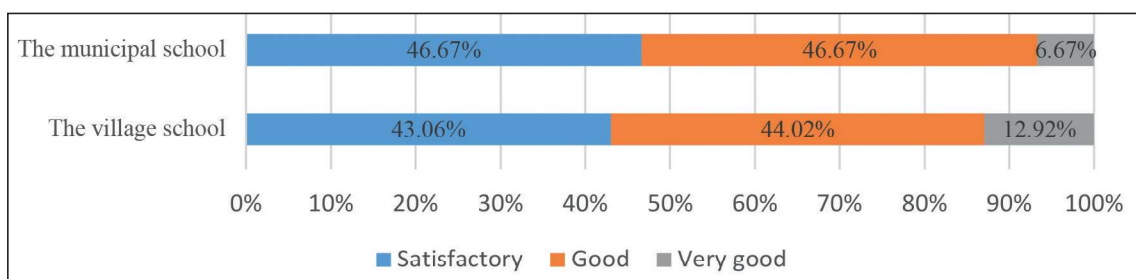
Responders	Which of the best descriptions about bulimia?			
	Night snacking, disturbances of mood	Weight control, counting calories, emaciated figure	Compulsive overeating, compensatory actions	Excessive attention to healthy eating
The village school in Jedrzejow	10.05%	7.17%	82.78%	0%
The municipal school in Siemianowice Slaskie	10.47%	4.78%	84.75%	0%

**Table III.** Answers to the question about orthorexia.

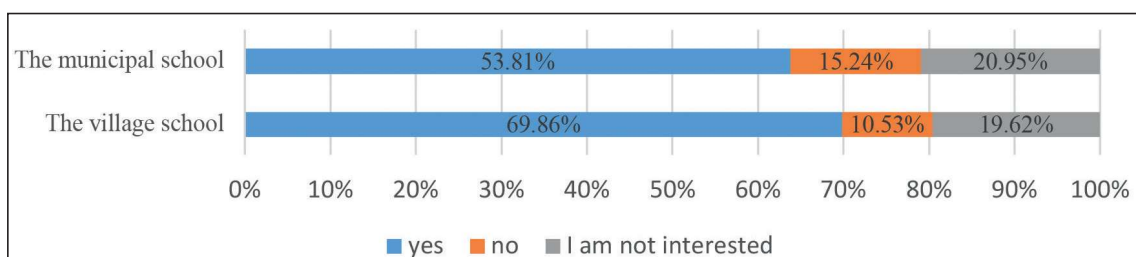
Responders	What is orthorexia?			
	A variety of anorexia	Caring for healthy eating	Addiction to physical activity	I do not know
The village school in Jedrzejow	3.38%	28.71%	8.13%	59.78%
The municipal school in Siemianowice Slaskie	6.19%	30%	0%	63.81%



**Fig. 1.** Answer to the question: Do you think that people with an eating disorder are able to cope with the disease on their own (N = 313)?



**Fig. 2.** Subjective assessment of respondents regarding their knowledge of eating disorders (N=313).



**Fig. 3.** Opinion of respondents about the number of classes devoted to eating disorders at school (N=313).



much more severe course [4]. It is estimated that boys and young men make up 10% of all diagnosed cases. Popularizing the ideal of a slim figure in mass and social media probably contributes to the aggravation of the problem.

It is alarming that over 40% of students in the author's own research were dissatisfied with their appearance. Moreover, every fifth student participating in the research admitted that they were following a diet aimed at reducing body weight. Similar studies on a group of high school students were carried out by other researchers [20]. Negative perception of one's body shape plays an important role in the development of eating disorders [21]. Incorrect assessment of one's appearance has a huge impact on attempts to lose weight, as shown in studies conducted on a group of girls aged 16 to 18 [22].

Nearly 7 out of 10 respondents who are students of one of the surveyed high schools admitted that they had made attempts to reduce body weight at least once. Similar dependencies were also shown by other authors [21, 23]. Continuous weight control and fasting can be important factors in the development of eating disorders.

Social networks and the mass media, such as the Internet and television, play a large role in shaping the views and beliefs of young people. They are an integral part of teenagers' lives. Creating the image of a perfectly slim figure encourages young people to use restrictive slimming diets and to reach for slimming products. The author's own study showed that every fifth student of the surveyed institution notices the influence of the media on shaping the ideal of a slim figure among their peers. Young girls are particularly vulnerable to the influence of the media. Other studies also confirm the indisputable influence of the media on shaping the personality of young people [24, 25]. In the author's own study, it was observed that a greater percentage of students living in the countryside noticed the influence of the media on shaping the image of an ideal figure.

It is disturbing that almost 5% of students in each school described anorexia as a way to achieve a slim figure. Other studies also indicate a lack of knowledge among adolescents on this subject [21, 26]. On the other hand, the awareness of the risk of an eating disorder increases with the age of the respondents [27]. Similar information was reported by the surveyed students about other eating disorders, e.g. bulimia nervosa. The results of these studies were largely consistent with the studies of other authors [21].

The growing interest in healthy eating contributes to the increasing incidence of the eating disorder known as orthorexia. However, the knowledge on this subject among the respondents was not satisfactory. On average, 3/5 of the respondents from both institutions declared that they did not know this term. Due to the fact that orthorexia is a new issue and consistent diagnostic criteria for this disease have not yet been fully defined, there are not many studies on this topic. However, there is an increased frequency of this type of phenomenon among adolescents [28].

The risk of developing eating disorders in young people increases when these disorders are present in those around them [23, 29]. In the literature, more and more attention is paid to the role of a dietitian in a therapeutic team treating eating disorders

[30]. Unfortunately, the importance of a dietitian's work among young people is still underestimated and marginalized.

40% of respondents subjectively assess their knowledge regarding eating disorders as being good or sufficient. However, nearly 70% of students of both surveyed institutions believe that school education on this subject is insufficient.

## CONCLUSIONS

The conducted research shows that age, gender and place of residence affect the general knowledge on the topic under study. Girls were more knowledgeable than boys, and city dwellers were more aware of eating disorders than rural residents. In conclusion, it should be noted that there is a need to educate young people more broadly about eating disorders and the risk factors for their occurrence. This is because insufficient knowledge of the basic symptoms of eating disorders and their contributing factors increases the risk of anorexia, bulimia and other eating disorders among young people.

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#### Conflict of interest

The Authors declare no conflict of interest.

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