

## ADOLESCENTS' ATTITUDES TOWARDS EATING AND THEIR BODY IMAGE

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### Abstract

Eating disorders, anorexia nervosa and bulimia nervosa, are the third most common chronic diseases occurring in adolescents that result from various combined factors (personality disorders, emotional disturbances, family pressure, possible genetic or biological predisposition, and culture) and are most common mental disorders associated with physical complications involving risk of death. The aim of the paper is to present the relations and attitudes of adolescents based on their way of life - their eating habits and body image.

The survey was conducted on 118 Medical School students from Croatia with their School Board and parents' prior consent. It consists of two groups of questions: questions related to eating habits typical of the restrictive diet (counting calories, reducing food, and skipping meals), and those related to appearance and satisfaction with one's own body. The results obtained were analyzed using statistical data analysis software.

Analysis of the food-related responses indicates that the participants do not show significant concern regarding the subject: 94 respondents do not avoid food that contains fat, do not eat food that has less calories, and do not have smaller portions of food; 8 respondents avoid eating between meals; and 7 respondents skip meals (to avoid weight gain). 34 do not care about gaining weight, 54 of them do, and 88 think their body is not fit enough (they believe they must exercise); 35 use laxatives to control their body weight; 18 participants express satisfaction with their body. Only one male and 60 female respondents want to reduce weight, while 15 males and 24 females want to increase weight. The small number of participants satisfied with their body weight and the number of people at this age using laxatives to control body weight are cause for concern. They represent the population prone to developing eating disorders.

The key factor in the treatment of eating disorders is a highly educated, therapeutic, interdisciplinary team.

**Key words:** *Eating disorders, Adolescents, Anorexia, Bulimia.*

### 1. Introduction

Eating disorders are the most common mental disorders associated with many physical complications that could pose the risk of death [7]. The World Health Organization defines them (according to the International Statistical Classification of Diseases and Related Health Problems) under ICD-10 as: Anorexia Nervosa, Bulimia Nervosa and Other Unspecified Disorders [6]. They represent eating disorders or, to be more precise, dieting disorders and are the result of the interplay of a number of factors (emotional disorders, personality disorders, family pressure, genetic or biological predisposition, as well as the culture of abundance of food and preoccupation with thinness) [9, 10]. First clinical descriptions were given by Lasègue and Gull in 1873, and ten years later, Huchar introduced the term "mental anorexia", which is still used. Together with bulimia, which was described in 1979, it is the third most frequent chronic disease in adolescents (4%) who are preoccupied with their body appearance, weight and food. A critical sign that differentiates anorexia and bulimia is body weight - it is always low in anorexia nervosa (the loss of 15% to even 60% of premonitory body weight), while bulimia patients are usually of normal weight or are overweight. While anorexic patients are constantly fighting the feeling of hunger by overcoming their appetite, bulimia patients binge eat and then vomit, at the same time having a strong sense of guilt [3].

Long-term recovery in eating disorders is conditioned by a multidisciplinary team approach, counseling and support of team members (doctors, dieticians, behavioral-cognitive therapists, psychotherapists, or nurses) trained in the treatment of nutritional disorders.

The treatment process usually takes a long time and depends on the patient's condition and the duration of illness. In severely undernourished patients, due to the risk of serious metabolic disorders and death, it is necessary to introduce food slowly - in the beginning the food of a minimal amount of energy which is then gradually increased to ensure body mass gain (1 to 2 kg per week). Enteral nutrition takes precedence while parenteral nutrition offers an alternative and safe way of successful treatment. The approach to creating a diet plan is strictly individual, incorporating the food that the patient prefers, so that the outcome of the treatment is as successful as possible. However, it must not be altered by the patient's arbitrariness [17, 18].

The treatment outcome of bulimia nervosa is better than the outcome of anorexia nervosa. Bulimia patients are not so secretive and mysterious in concealing the symptoms of their own disease when compared to anorexia patients. Antidepressant drugs have been shown beneficial in the treatment of patients with bulimia and severe depression [13].

## 2. Materials and Methods

The research has been conducted for the purposes of the seminar as part of the Dietetics course at the Department of Biomedicine - Nursing, University North, in Varaždin. The course holder officially asked both the school principal and the students' parents for permission to conduct a survey. The obtained results give an insight into the adolescents' viewpoints and attitudes regarding their individual eating habits as well as their body image in different situations and environments.

### 2.1 Materials

The results were obtained by conducting a survey on 118 Medical School students from Croatia (grades 1 to 5). The questions in the questionnaire were clear and unambiguous, and the survey was anonymous.

### 2.2 Methods

The survey method was used in the research in form of a questionnaire. It was conducted with students in the classroom, in the presence of surveyors and teachers. The questionnaire consisted of a total of 46 questions divided into thematic units. The introductory group of questions were relating to anthropological characteristics: age, sex, body mass index (BMI), and desired body weight (questions 1 to 5). The first group of questions

consisted of questions numbered from 6 to 13. They were related to eating habits and the strategy of keeping a restrictive diet (counting calories, reducing the amount of food, and skipping meals). Three responses were offered (the scale with rarely or never, sometimes, and almost always). The other group consisted of questions numbered 14 to 45 which were related to appearance and satisfaction with one's own body. The number of responses offered was 6 (the scale with never, rarely, sometimes, often, very often, in the last four weeks). The final question was related to laxative use.

## 3. Results and Discussion

In the last two decades, the ever-growing presence of increased incidence and prevalence of eating disorders has been noted in the world as well as in Croatia, involving all social strata, ethnic and age groups and geographical areas [11].

The aim of this survey was to show the general attitude of both the male and female population of adolescents about their body image and that some respondents are people with potential to have or may already have problems with eating disorders.

The obtained data indicate that there are 64 female and 54 male respondents from 16 to 20 years of age with BMI ranging from 13.67 to 33.64 (Figure 1).

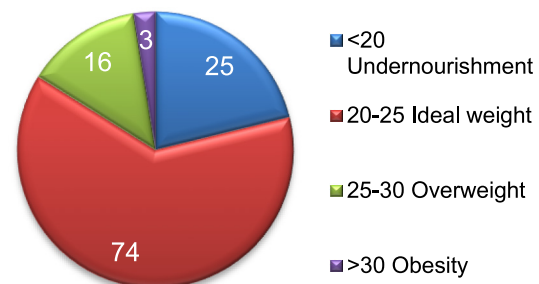


Figure 1. Respondents' BMI

25 respondents are malnourished, 74 of them are of ideal weight, 16 are overweight, and 3 are obese.

Out of a total of 118 respondents, 17 of them are satisfied with their weight, 60 female subjects and 1 male want to reduce their body weight, while weight gain is wanted by 23 female (2 - 5 kg) and 14 male respondents (2 - 8 kg); a respondent who is extremely underweight needs to be excluded (with the height of 160 cm and weight of 35 kg his desired weight is 65 kg).

It is important to note that gender as a biological factor affects the onset of eating disorders with ten times greater presence in the female population [1]. Eating disorders in women occur somewhat earlier than in men, who more often use compensatory forms of be-

havior (binge eating, self-induced vomiting and excessive exercising). Data suggest that approximately 5% to 10% of the total number of people suffering from eating disorders are men [19]. One of the studies has shown that most male adolescents want to increase their weight and they do exercise to be more muscular, whereas most female adolescents want to reduce weight, i.e. their ideal weight is lower than their actual weight [8].

By analyzing responses related to eating habits, it can be seen that the respondents did not show significant worry or concern. 95 to 111 of them (depending on the question) answered that they did not avoid food containing fat, they did not eat food that has less calories, and they did not choose smaller portions of food only to avoid weight gain. Only 8 subjects responded they avoided eating between meals to avoid weight gain. Seven subjects skip meals to avoid weight gain (Figure 2).

Diet as a method of regulating body weight is a strong risk factor for the onset of eating disorders. Research shows that female adolescents who are on a moderate diet have a five times higher risk of developing eating disorders than their non-dieting peers; this risk is eighteen times higher with those who are on a strict diet [14].

39 respondents have been often, very often or always worried in the last four weeks that they might gain weight; 39 of them rarely or sometimes; and 40 of them have never been worried. 34 respondents have been often, very often and every day so concerned about their appearance that they have felt the need to go on a diet in the last 4 weeks; 17 of them have

been so worried about their physical appearance that it has led them to start the diet. However, when asked whether they worried about their appearance so much that they felt the need for a diet, only 41 said they have never worried, 24 of them rarely, 19 sometimes, while 34 have worried often or always in the last 4 weeks (Figure 3).

Intuitive eating, which allows consumption of all desired types of food, with the need based on a personal feeling of hunger, satiety and physical need, is certainly a substitute for a diet. Eating habits of these people are more appropriate; they are more satisfied with their body and have normal body weight [15, 16].

One's own body image is subjective. It is created based on the way we see and experience our body, the feelings and thoughts that we associate with our body and bodily experiences. Body image in anorexia is completely distorted. Objectively, a person is aware that s/he is below the average weight, but s/he "feels fat" or considers a part of her/his body extremely fat, e.g. stomach, thighs, etc. [2].

Often, very often, or always in the last four weeks, 20 of the surveyed adolescents have been aware of their body image in the presence of other women, 9 have felt less worthy when comparing their body appearance with the bodies of other women or men, and 11 of them have avoided situations where their body might be visible. 15 respondents worry about somebody seeing their body fat. The responses to the same questions with a scale of responses never, rarely or sometimes range in numbers from 98 to 110.

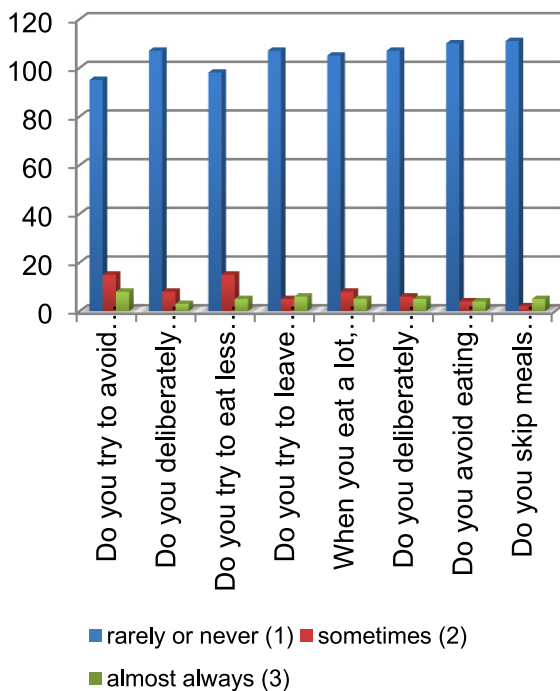


Figure 2. Overview of eating habits

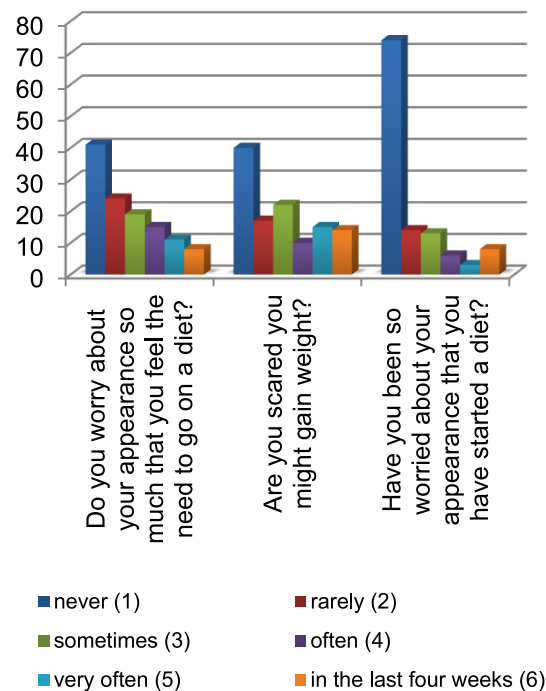


Figure 3. Overview of attitudes toward the need for a diet

By focusing on appearance and attractiveness for success and satisfaction, the ideal of feminine beauty is moving further from the natural physiognomy of a woman's body (Figure 4). Cultural pressure is a strong risk factor for people with other predispositions to develop eating disorders [2].

Eating disorders have their own symptoms that are gradually developing and "attacking". This leads, inter alia, to excessive exercise. This physical activity, or the implementation of a predetermined exercise plan that should not be missed (the feeling of guilt occurs), is aimed at weight loss, not at the enjoyment of movement, nature or how the person feels [2].

84 respondents answered with never, rarely or sometimes to the question whether their body image suggests that they should start doing exercise. Also, 90 in the scale of 1 - 3 do not worry about their body not being firm (Figure 5).

Some of the signs that point to the possibility of occurrence or presence of an eating disorder are feelings of guilt after meals, separation of food into categories such as "good" and "bad" or "forbidden" and "allowed", avoiding meals when in the company as well as being preoccupied with food (e.g., when a person pays much attention to what to eat, when to eat it, where to eat it, etc.) [5].

The results obtained based on the answers to the questions regarding the body image after food consumption (Figure 6) range from 6 to 25 subjects on a

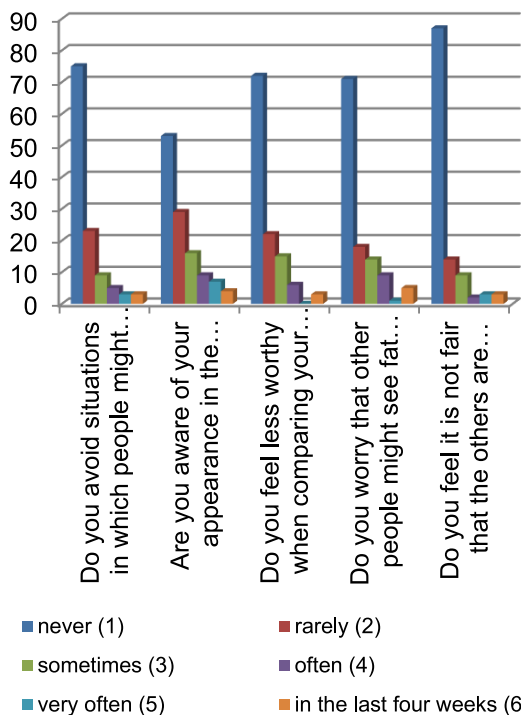
scale with answers often, very often, or always in the last four weeks.

Believing in one's own worthiness based on appearance (if I'm thin, I'm worthy; if I'm not thin, I'm not worthy) and the distorted view of one's own body (the person sees herself/himself fatter than s/he really is) also represent a sign of the possibility of occurrence or presence of eating disorders [17].

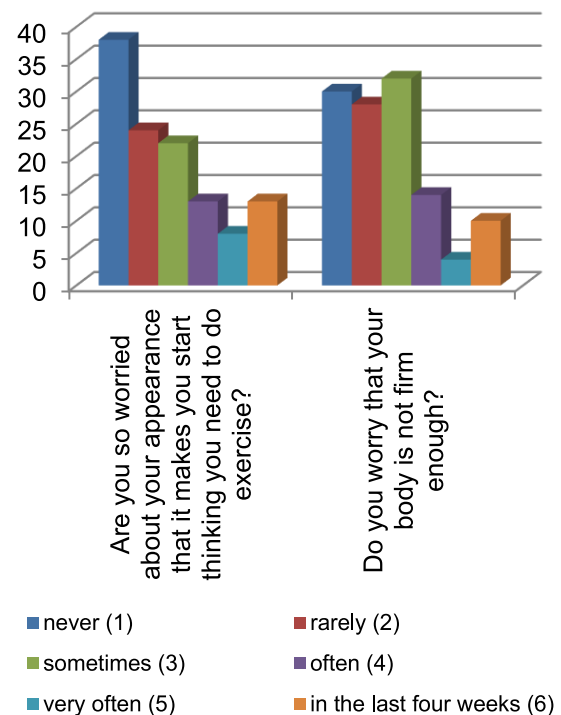
The obtained results of these signs are shown in Figures 7 and 8, where again approximately the same number of respondents, from 2 to 32 (depending on the question), have been often, very often or always in the last four weeks preoccupied with the physical appearance of individual parts of their bodies as well as physical appearance, with an emphasis on "fat deposits".

Coping with unpleasant emotions and problems by turning to food (binge eating or excessive control of food intake), low self-esteem, tendency to over-control feelings, or sudden mood swings and depression indicate early detection of eating disorders [5].

The results obtained on the basis of questions that deal with emotional issues, i.e. one's own body image through emotions, and that can be answered with often, very often or always in the last four weeks belong to a smaller number of respondents (Figure 9). For example, 5 respondents answered they felt so bad when they saw their body that they started crying, and 13 answered that thinking about their own body disturbed their concentration during learning, reading or watching TV.



**Figure 4. Overview of attitudes toward one's own body in relation to the appearance of other people's bodies**



**Figure 5. Overview of the results regarding the need to do exercise because of being unsatisfied with one's own appearance**

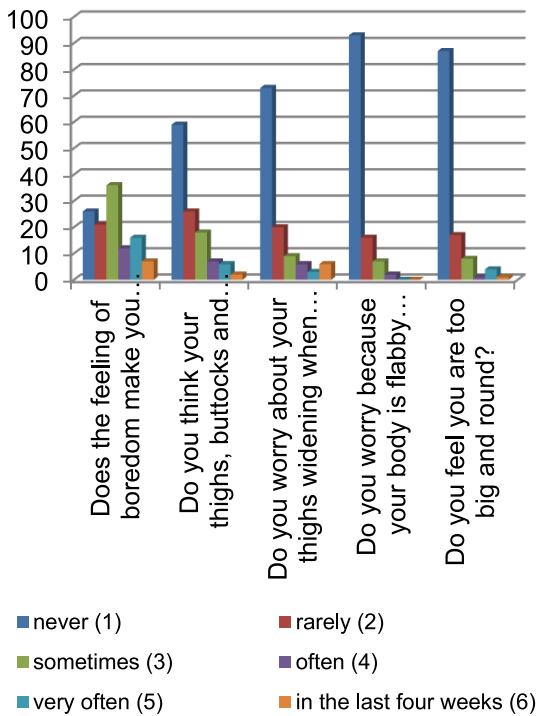


Figure 6. Overview of the results regarding one's body image after food consumption

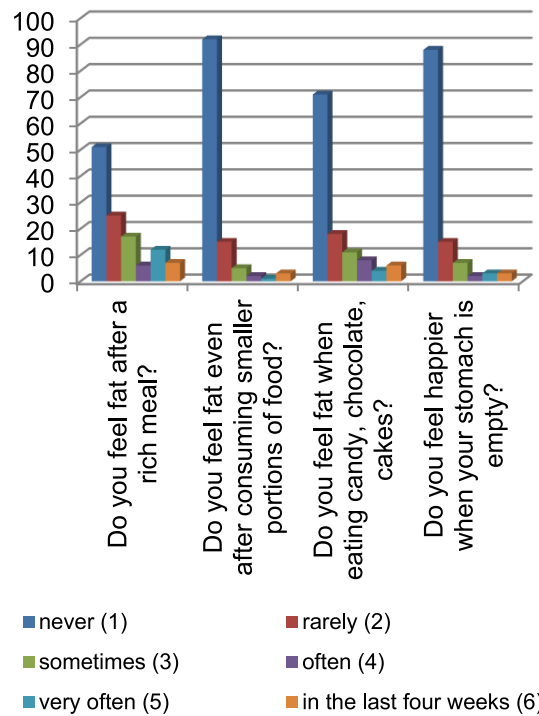


Figure 7. Overview of the results regarding the worry about the physical appearance of individual body parts

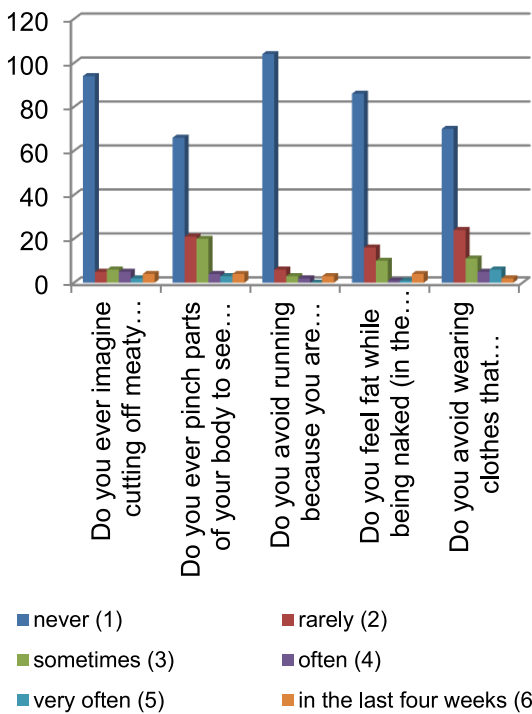


Figure 8. Overview of the results regarding the physical appearance with an emphasis on "fat deposits"

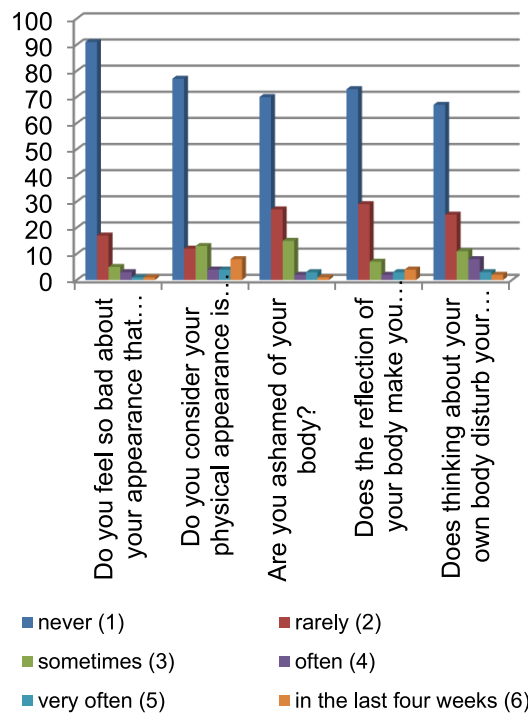
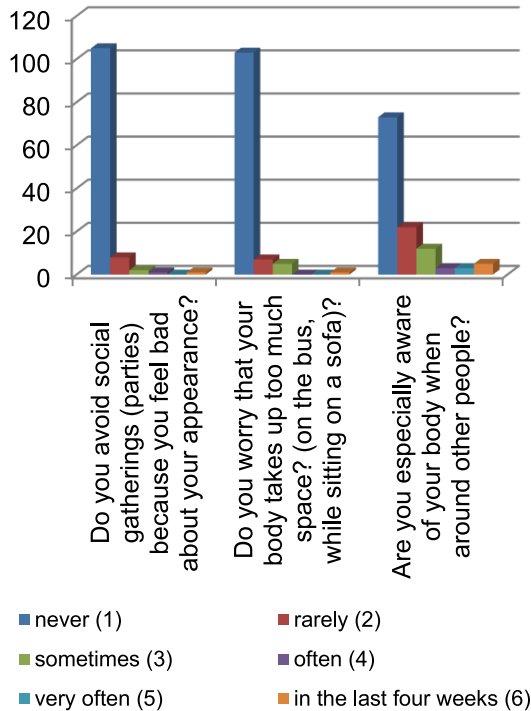


Figure 9. Overview of the results regarding one's own body image influenced by emotions

People suffering from eating disorders often withdraw into themselves; they are neither interested in socializing with their friends nor in the usual activities they have previously participated in. The center of their lives is weighing and paying special attention their

appearance by constantly asking others for an opinion on whether they are overweight. Experts suggest encouraging such people to socialize with other people to feel less isolated by participating in activities that are not focused on eating (going to the concert) [2].

Our respondents are not people who avoid having fun or socializing because they feel bad, or that the size of their body takes up a large space. Only 11 of them are particularly aware of their appearance in the presence of other people (Figure 10).



**Figure 10. Overview of the results regarding avoiding socializing with other people**

A surprising result is that 30 respondents use laxatives to control their body weight.

Given the fact that the research was conducted by the university students of nursing with the nursing high-school students, the following interventions are proposed by the profession as part of the treatment:

- Create a personalized menu
- Determine weekly weight gain dynamics
- Weigh the patient before and after the meal
- Observe the patient during and after the meal (manipulation)
- Use the assisted feeding technique, if necessary
- Encourage patients to keep diet journals
- Limit physical activity
- Help and teach the patient to conduct anxiety reduction procedures
- Help develop healthy defense mechanisms
- Encourage the patient to express her/his feelings, thoughts, and behaviors during a critical review of their own behavior
- Support the patient's positive opinion of oneself
- Coordinate the entire therapeutic program with the team members and associates.

#### 4. Conclusions

- The increasing incidence of eating disorders as a serious and difficult problem presents an increasing share in the overall number of other psychiatric disorders of children, adolescents and adults in psychiatric clinical practice.

- The results obtained by this study show that approximately the same number of respondents (about 30) gives answers in each group of questions that are related to the assessment scale from 4 to 6. This means that often, very often, or in the last four weeks, the respondents have been in some way occupied with their body, weight or weighing, diet, socializing with other people because of their appearance, exercise, or using laxatives.

- These are people who at this age represent a population of people potentially suffering from eating disorders.

In health care and treatment, the key is an interdisciplinary, therapeutic and educated team (psychiatrist, nurse, psychologist, social worker, and nutritionist) whose goal is to establish a relationship of trust with the patient so they are able to express their opinions, attitudes and needs.

- In Croatia, there is a project named "Who Is That in the Mirror?" (It was presented at the Congress of the Society for Prevention Research in Lisbon, December 2011; it received positive opinion of the Education and Teacher Training Agency at the Ministry of Science, Education and Sports of the Republic of Croatia). The Project is based on the prevention of eating disorders (10 workshops in series) and is intended for pupils of high schools of Zagreb. The author is Jelena Balabanić Mavrović, M.Sc. The contents of the workshops deal with various topics: the formation of female identity, gaining self-confidence, breaking media stereotypes about female beauty, the improvement of nutritional habits, the development of a positive relationship with one's own body, etc. The results of the research have shown high efficiency of the program.

- An example of good practice is the Pediatric Clinic of KBC Sestre milosrdnice in Zagreb, where a cycle of professional lectures and a support group under the name of "Eating disorders - Understanding your behavior in relation to the others" have been launched for the medical staff of the gastroenterological team of the Clinic. The topics of the lectures are based on the latest scientific knowledge in the area of developing and maintaining eating disorders, communication skills, developing empathy in the relationship between a physician and a patient with a feeding disorder, etc. [12, 18].

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