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Selected psychological traits and body image characteristics in females suffering from binge eating disorder

Bernadetta Izydorczyk

Summary

Aim. This paper reports the results of the author's own research aimed at diagnosing specific psychological (personality) traits and body image characteristics in a population of selected females suffering from binge eating disorder (BED).

Method. The methods applied in this research included an inventory (i.e. a Polish version of the Eating Disorder Inventory (EDI) devised by David Garner, Marion P. Olmsted, and Janet Polivy, adapted by Cezary Żechowski; and the Socio-cultural Attitudes towards the Body and Appearance Questionnaire, constructed by the author of this study, based on the results of factor analysis and subject literature), as well as projective techniques such as Thompson's Silhouette Test and a thematic drawing: "body image". The inventories and projective techniques applied in the research procedures aimed at diagnosing the level of selected psychological traits in the examined females.

Results. Statistical analysis of the data obtained as a result of this research revealed that the examined females suffering from psychogenic overeating were overweight. Analysis of the study data concerning the subject's evaluation of their body image pointed to a substantial discrepancy between the individuals' perception of their current body shape, which they clearly did not approve of, and the ideal thin body that the females desired. The study data obtained as a result of the EDI inventory, aimed at diagnosing the level of selected psychological (personality) traits exhibited by the examined females, revealed that the subjects received the highest (inappropriate) score in the scale describing the individuals' preoccupation with pursuit of thinness. It was also discovered that the study participants had a high level of internalization of socio-cultural norms about the ideal female body, promoting the "cult of thinness", and they exhibited the feeling of insecurity and personal worthlessness, as well as a low level of interpersonal trust. It was also found out that the research subjects experienced considerable difficulties in establishing interpersonal bonds, and exhibited inappropriately low level of interoceptive awareness of body sensations, as well as increased perfectionism.

Conclusions. A psychological diagnosis of body image characteristics combined with an examination of dominant personality traits in individuals suffering from binge eating disorder might be a significant element of treatment process. The research findings suggest that the females diagnosed with BED, who tend to "eat up" their emotions and exhibit an inadequate level of drive for thinness, low self-evaluation (the feeling of worthlessness), and experience difficulties in establishing and maintaining close relationships, require complex treatment which should combine such methods as regular medical examination of the patients' somatic condition, long-term depth psychotherapy, elements of cognitive-behavioral therapy focused on body image and the vicious circle of overeating, and dietary treatment.

body image / psychological traits / attitudes towards the body and eating / binge eating disorder (BED)

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INTRODUCTION

A phenomenon of compulsive "eating up" emotions (or emotional eating) is referred to as binge eating disorder (BED), using the current nomenclature of The American Psychi-

atric Association's Diagnostic and Statistical Manual [1]. According to the criteria of the International Statistical Classification of Diseases and Related Health Problems [2], this disorder has been categorized as the phenomenon of "overeating related to other psychological factors", or "psychogenic overeating" [1, 2].

Exploration of the subject literature shows that there is a variety of other terms used to refer to the aforementioned disorder which is frequently labeled as compulsive overeating disorder, paroxysmal recurrent overeating, gluttony, riotous eating, or binge eating. Numerous studies have addressed this issue, which has been described in the subject literature [3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19].

BED sufferers constitute a heterogeneous group of individuals who show differences in terms of personality structure and exhibited psychopathologies. Another interesting finding to emerge from scientific research is that overweight and obesity frequently occur as a consequence of binge eating [20, 21]. It is also proven that individuals diagnosed with compulsive overeating suffer from depressive disorder, and cope with difficulties in expressing such emotions as anger, anxiety or frustration, caused by unsatisfied social and emotional needs [4, 10]. BED sufferers exhibit different levels of destabilization of self-structure, and frequently display symptoms of borderline or neurotic personality disorder [10]. The studies conducted by Spitzer revealed that approximately 30% of obese individuals and 2- 5% of the general population meet the diagnostic criteria of binge eating disorder [1, 5, 14, 16]. The results of the research carried out in the group of obese respondents proved that 5-10% of the participants could be diagnosed with [14].

Scientific research demonstrates that the incidence rate for binge eating disorder is estimated to be higher than that for bulimia nervosa, and the population of individuals who suffer from BED is more diverse than the group of bulimia sufferers [7, 14, 15, 16]. As opposed to anorexia and bulimia nervosa, BED is not prevalent among women, and its incidence rates for males and females are approximately equal [21].

However, there is still little empirical knowledge about the aforementioned phenomenon, and far less professional literature is devoted to the subject. Not many studies have addressed the question of psychological factors determining BED. In reviewing non-English literature, little data can be found on clinical and empirical research conducted in a population of individuals diagnosed with binge eating disorder, especially the studies carried out in Eastern European countries (e.g. Poland). However, it should be emphasized that diagnosing psychological factors which determine BED is likely to improve the effectiveness of therapy in patients exhibiting this kind of disorder.

RESEARCH QUESTIONS AND OBJECTIVES

The main aim of this research was to examine selected psychological traits and body image characteristics in a population of young Polish females suffering from BED. The following research questions were asked:

Is it possible to distinguish any specific strength levels for the psychological (personality) traits and body image characteristics in the examined group of females with psychogenic binge eating; and if so, what is this constellation of strength levels?

Is there any correlation between certain personality characteristics of females with BED and their body image self-evaluation; and if so, what is this correlation?

The main variables in the research were psychological (personality) traits and body image characteristics.

Body image can be defined, referring to the subject literature, as a complex construct constituting the following configuration: emotional experience related to body and its functions, as well as mental concept (perception and thoughts) regarding physical appearance [22]. The major components of the variable which were examined in the study included:

1. A body schema (a degree of an individual's knowledge of one's own body, and the person's awareness of specific body parts).

2. A sense of body boundaries (the feeling of separating one's own body from the external world).
3. Interoceptive awareness, i.e. the ability to recognize and respond to emotional states and body sensations (the feeling of perplexity accompanying the process of recognizing and responding to emotional states and body sensations).
4. Experiences related to body functions (maturity fear experienced by an individual, that is, the person's approval of psychosexual development, which is related to the process of entering the stage of maturity, and to body image change as well as loss of the sense of childhood security).
5. Body image, i.e. a sensual image of sizes, shapes and forms of the body as well as the feelings regarding the body. The major aspects of body image include: adequate evaluation of body shape and size, as well as feelings regarding the body (satisfaction, acceptance or disapproval).
6. Self-evaluation and body satisfaction – the level of general satisfaction with one's own body, weight, body shape and physical appearance. Body self-evaluation includes assessment of an individual's current body shape (i.e. the "actual me "image) and evaluation of the ideal, most desired attributes which the person would like to have (i.e. the ideal body image - "what I would like to look like").

Psychological (personality) characteristics were defined as a complex variable describing a set of personality traits, acquired by an individual as a result of environmental influences, and referred to in the subject literature as significant characteristics contributing to psychological development of a person diagnosed with an eating disorder, and stimulating the individual's destructive or pro-health attitudes towards his or her body.

Due to diversity in eating psychopathologies and their specific character, only selected psychological (personality) traits were examined in this research. They included such characteristics as body dissatisfaction and body disapproval, perfectionism, bulimia, repetitive cycles of obsessions and compulsions aimed at controlling emotions, drive for thinness, low self-esteem (the feeling of worthlessness), interpersonal distrust and difficulties in building emotional bonds with other people. According to the international and Polish subject literature, the aforementioned features are considered to be the most significant psychological characteristics of individuals suffering from eating disorders [23, 24, 25, 26].

The components and indicators of the variable included:

1. Drive for thinness – described as fear of weight gain, and excessive concern with dieting as well as extreme preoccupation with weight, and an intense desire to be slimmer;
2. Perfectionism – the tendency to hold exceptionally high expectations, and to live up to the highest possible standards in order to gain personal achievements in life;
3. Bulimia – referred to as preoccupation with food and overeating as a result of frustration and emotional dejection, usually followed by recurring episodes of binge eating and purging;
4. Ineffectiveness – assessed an individual's feelings of inadequacy, insecurity, worthlessness and having no control over their lives; it included elements of negative self-evaluation and self-concept;
5. Interpersonal distrust – described as an individual's feeling of social alienation, and reluctance to form close relationships, as well as discomfort with expressing personal thoughts and feelings in the company of other people;
6. Socio-cultural attitudes towards appearance and the body – the characteristic which refers to affective and cognitive processes and the body-related behaviours and attitudes which an individual adopts under the influence of socio-cultural factors such as the influence of the mass media (the institutions and means of social communication such as newspapers, radio, television, advertising campaigns, the internet, posters, books, leaflets, which distribute information to promote the cult of thinness [27, 28]. The indicators of this variable included:

– the level of internalization of the slim body ideal (conscious or subconscious acceptance of standards regarding an attractive female body shape, determined by the mass media),

– the media pressure faced by an individual (the influence of the media messages on the person's attitude towards the standards of attractive female appearance),
– the media exposure - the amount of written, audio or visual information (messages) received by an individual through the media (exposure to the ideas and messages portrayed in the mass media).

An additional controlled variable examined in the present study was body mass index BMI. Its value is calculated as the individual's body weight, measured in kilograms, divided by the square of his or her height, measured in meters.

SUBJECTS

30 Polish females participated in the research. The subjects were selected intentionally. The selection criteria included symptoms of medically diagnosed binge eating disorder (according to the ICD 10 F.50.4 criteria of psychiatric classification), age between 21-26 and the subjects' willingness to give informed consent to participate in the research. The criteria which excluded participation in the study included: productive psychotic symptoms, organic changes in the CNS, improper intellectual development, and chronic somatic conditions (visible disability and body distortions, which might affect the individual's attitudes towards the body and eating).

The research was conducted in the years 2008-2011, in treatment centers for eating disorders and in outpatient mental health clinics. All the participants remained under treatment. The mean duration of treatment in the group of the examined females ranged from 1 to 3 months. The subjects had no past medical history of BED or other eating disorders. The study was approved by the Ethics Committee of Silesian University.

RESEARCH METHODS

The variable, psychological traits, was measured using a Polish version of the Eating Disorder Inventory (EDI) devised by David Garner, Marion P. Olmsted, and Janet Polivy, adapted by Cezary Żechowski [20]. Another measurement instrument applied in the research was the Socio-cultural Attitudes towards the Body and Appearance Questionnaire (devised by the present author).

The author of this study obtained a written permission of Psychological Assessment Resources, Inc. (16204 North Florida Avenue, Lutz, Florida 33549, USA, www.parinc.com), to use the EDI inventory.

A 24-item Questionnaire of Socio-cultural Attitudes towards the Body and Appearance, devised by the author, served as an instrument for measuring the indicators of socio-cultural attitudes towards the body and appearance. It was based predominantly on the Socio-cultural Attitudes Towards Appearance Questionnaire (SATAQ), devised by Thompson and Heinberg, and on the subject literature [28].

In the next step an attempt was made to construct a preliminary version of a questionnaire which was used to conduct a pilot study on a sample population of 140 Polish females. Factor analysis was performed in order to conduct statistical evaluation of the values of reliability indicators for the particular items in the questionnaires applied in the research. The obtained Cronbach's Alfa ratios proved that 24 items included in the Socio-cultural Attitudes towards the Body and Appearance Questionnaire (SABAQ) were the most reliable ones, and hence they were used in further stages of this research. The questionnaire was applied in order to measure the level of internalization and awareness of the standards of attractiveness promoted by the mass media. The instrument comprised 24 items which constituted three scales: (1) the Internalization scale, (2) the Pressure scale, and (3) the Information scale. The values of the reliability indicators for the examined scales, measured by means of Cronbach's Alfa ratio, ranged between 0.91 and 0.89. Similarly to the data collected using the EDI inventory, the study data obtained as a result of the SABAQ were examined by means of temporary percentile norms constructed for the research population of 140 females.

Another instrument used in the research was a projective technique – a thematic drawing

("body image"). It was applied to examine the components of body image such as the level of body schema complexity as well as a sense of body boundaries [29, 30].

Another projective technique, the Contour Drawing Rating Scale devised by Thompson and Gray, was applied to evaluate the participants' perception of their body image [31, 32]. The figure ratings obtained in the test were used to calculate the current-ideal discrepancy (the individual's perceived current body shape, the "actual me" image, versus the ideal body image, "what I would like to look like"), and thus to examine the respondents' body image acceptance [33].

A thematic drawing ("body image") was used to examine the level of body schema complexity as well as a sense of body boundaries (the feeling of separating one's own body from the external world, which allows to perceive oneself as a bodily creature, definite and different from others). In order to investigate the aforementioned elements, the test analysis focused on such aspects of the drawing as evaluating the number of body details as well as investigating formal and structural elements of the drawing (the size of the figures, the pencil stroke and pressure). Referring to theoretical assumptions concerning the role of the human figure drawing in a psychological diagnosis, it was assumed that the greater number of details corresponds with a higher level of the body schema complexity.

The accuracy of classifying the particular indicators into appropriate categories was examined by five competent judges (clinical psychologists), on the basis of the following scale:

- 0 – a low (inadequate) score (lack of the particular body part in the drawing);
- 1 – a high (adequate) score (an element depicted in the drawing);
- 0.5 – an average score.

Statistical analysis

Statistical and clinical analysis of the research data was conducted, which was aimed at:

– calculating the mean values and standard deviations for the level of the investigated traits in the group of subjects with BED, and in the next step conducting psychological (clinical) interpretation of the configuration of the investigated variables;
– examining the correlation between personality traits and body image evaluation among females diagnosed with BED.

RESEARCH RESULTS

It should be emphasized that the research findings cannot be generalized or applied to other groups or populations since the study was conducted in a small sample which was heterogeneous in terms of the level of mental dysfunctions exhibited by the subjects. However, the sample size was sufficient (N=30) to conduct statistical analysis of the research data. Nevertheless, it is important to carry out further research in this field.

The research data displayed in Tab. 1 and Tab. 2 demonstrate the levels of the examined psychological traits and body image characteristics in the group of females diagnosed with binge eating disorder.

Due to the fact that a large amount of data was gathered as a result of the process of standardization of the research methods and constructing Polish temporary percentile norms for the particular scales of the EDI inventory and the SABAQ, Tab. 1 presents only those percentile values which were obtained in the research population of 30 females suffering from BED. Tab. 1 and Tab. 2 – *on next page*.

The mean values concerning weight pointed to the fact that the study participants were overweight. Analysis of the obtained data did not reveal any body schema or body boundary dysfunctions in any of the examined subjects. Such characteristics of the participants' body image drawings as the size adequacy of the sketched figures and the number of body parts they included in their drawings were rated by the competent judges as average, which proves that the examined females maintained a proper body schema and a sense of body boundaries. However, the scores obtained in the EDI inventory point to an inappropriate level of all of the investigated psychological traits displayed by the study participants.

Table 1. The main characteristics of the research data gathered as a result of the Thompson's Figure Test, conducted in a population of females with binge eating disorder (N=30). Descriptive statistics for the mean values, median and standard deviations, which was aimed at determining psychological traits and body image characteristics in the examined participants

Components of the independent variable: age, weight, body mass index, body image	Mean	Standard Deviations
Age	24.76	2.75
Weight	73.72	10.09
Body mass index BMI	27.15	5.75
Evaluation of the current self image ("what I look like") - Thompson's Figure Test	6.06	1.63
Evaluation of the ideal self image ("what I would like to look like") - Thompson's Figure Test	2.56	1.10

Table 2. The main characteristics of the research data gathered as a result of the EDI inventory, the Socio-cultural Attitudes Towards the Body and Appearance Questionnaire (SABAQ), and Thompson's Figure Test, conducted in a population of females with binge eating disorder (N=30). Descriptive statistics for the mean values, median and standard deviations, which was aimed at determining psychological traits and body image characteristics in the examined participants.

Components of the independent variable: psychological traits	Mean	Standard Deviations	Percentile Rank
Drive for thinness	16.17	1.72	98
Bulimia	3.17	4.30	57.6
Maturity fear	7.67	4.49	57.6
Perfectionism	11.78	1.97	69.5
Ineffectiveness	12.67	1.45	68.8
Interpersonal distrust	5.58	4.31	72.4
Body dissatisfaction	13.06	7.57	55
Interoceptive awareness	10.06	7.35	76
Level of internalization of socio-cultural norms	27.00	2.64	72.8
Level of pressure to conform to socio-cultural norms	21.83	2.64	73.5
Level of exposure to the media information concerning socio-cultural norms	29.78	1.66	60

The data collected as a result of this research indicates that the examined females' self-esteem was low (which indicates their feeling of worthlessness). It was also discovered that the subjects exhibited an increased level of interpersonal distrust, and a low level of interoceptive awareness, in other words, their ability to recognize and respond to emotional states and body sensations proved to be relatively poor. Moreover, it was discovered that the examined individuals exhibited a high level of body dissatisfaction and an intense desire to be slim and to have ideal (almost skinny or emaciated) bodies. A relatively low level of overweight in the study participants, which was determined by measuring the subjects' body mass index (BMI), proved to be inconsistent with their strong drive for thinness and extreme dieting tendencies. Scientific research results point to the fact that a person's preoccupation with pursuit of thinness tends to increase in direct proportion to the increase in his or her weight [24]. Numerous studies, described in the subject literature, have noted a significant impact of socio-cultural norms on the drive for thinness [34, 35, 36, 37].

The females' mean scores obtained in the three scales of the Socio-cultural Attitudes Towards the Body and Appearance Questionnaire (the Internalization, the Pressure and the Media Exposure scale) indicate that the examined individuals yield to the significantly high pressure of socio-cultural norms promoted by the mass media, and have (consciously or subconsciously) internalized the socio-cul-

tural standards of the ideal female body and attractive appearance.

Tab. 3 and Tab. 4 display the research data concerning the strength of correlations between the particular psychological characteristics investigated in the present study, displayed by the clinical subjects (i.e. the females suffering from BED), and their self-evaluation of the actual body image.

The data obtained as a result of this study indicates that the females' body dissatisfaction and drive for thinness tends to increase in direct proportion to the increase in the level of their self-worthlessness. Similarly, an increased level of interoceptive awareness triggers an increase in the strength of perfectionism among the examined females. Perfectionism (the person's tendency to hold exceptionally high ex-

Table 3. Values of Spearman rank correlation coefficient, showing the correlations between the particular psychological characteristics (measured using the EDI) in a population of females with BED (N=30)

Psychological characteristics EDI	1	2	3	4	5	6	7
2	0.402						
3	0.201	-0.087					
4	0.151	-0.159	-0.070				
5	0.294	0.194	-0.261	-0.135			
6	-0.057	-0.197	-0.034	0.534**	-0.440		
7	-0.057	0.578**	-0.260	-0.127	0.282	-0.075	
8	-0.277	-0.383	0.170	-0.436	0.209	-0.332	-0.010

** p<0.01

Legend: 1 – body dissatisfaction; 2 – interoceptive awareness; 3 – maturity fear; 4 – drive for thinness; 5 – bulimia; 6 – ineffectiveness (self-worthlessness); 7 – perfectionism; 8 – interpersonal distrust

Table 4. Research data concerning a diagnosis of the strength of correlations between the psychological characteristics displayed by the examined females with BED (obtained as a result of the EDI) and their body image (examined using Thompson's Figure Test) (N=30). The values of Spearman rank correlation coefficient.

Psychological characteristics (EDI)	1	2	3	4	5	6	7	8
Actual body image (the actual me) Thompson's Figure Test	0.7354	0.3196	0.2198	0.1854	0.1079	0.2320	0.0596	-0.4787
	p=0.001	p=0.196	p=0.381	p=0.461	p=0.670	p=0.354	p=0.814	p=0.001
Ideal body image (what I would like to look like) Thompson's Figure Test	-0.0394	0.0032	-0.4372	0.2282	0.0665	0.2703	-0.2132	-0.0296
	p=0.877	p=0.990	p=0.070	p=0.362	p=0.793	p=0.278	p=0.396	p=0.907

Legend: 1 – body dissatisfaction; 2 – interoceptive awareness; 3 – maturity fear; 4 – drive for thinness; 5 – bulimia; 6 – ineffectiveness (self-worthlessness); 7 – perfectionism; 8 – interpersonal distrust

pectations and to live up to the highest possible standards in order to gain personal achievements in life) seems to be a defence strategy which the females tend to adopt in order to control their impulses and raise self-esteem.

Analysis of the values of Spearman rank correlation coefficient displayed in Tab. 4 revealed statistically significant correlations between two of the psychological traits examined in the study and the participants' perception of their bodies. A statistically significant directly proportional correspondence was observed

between the subjects' body dissatisfaction (1) and their self-evaluation of the actual body image ("the actual me"). The study data indicate that the level of body dissatisfaction affected the females' choice of the silhouettes most resembling their own body shape in Thompson's test. The following tendency was detected: the participants' growing preference for the most obese figures in the aforementioned silhouette test corresponded with an increasing level of their body dissatisfaction. This proves that the more dissatisfied with their bodies the females were, the more often they tended to distort estimates of their current body size.

Moreover, it was discovered that the subjects' scores on the scale of an ideal (desired) body image tended to decrease significantly with increasing interpersonal distrust. This indicates that the increasing level of distrust towards other people, social alienation and body dissatisfaction among the examined females contributes to their growing desire to have slimmer bodies.

The females' difficulties in establishing emotional relationships, coupled with a low level of interpersonal trust, are likely to trigger a strong desire for thinness among the examined individuals. Analysis of the study results revealed that the examined females had a high level of internalization of socio-cultural norms and standards of the ideal female body and attractive appearance. Hence, it can be hypothesized that the women's attempt to yield to the social pressure regarding ideal appearance frequently resulted in social alienation and self-destructive tendencies. In order to achieve the social standards of beauty, the females tend to engage in dietary behaviours aimed at gaining an ideal slim body. They frequently exhibit low self-esteem, and regulate their behavior following the rule: "My appearance is my personality". This may be regarded as a symptom of self-destructive activity (harmful to health or life), which is likely to impede the process of treatment (e.g. the individuals fail to follow therapeutic instructions concerning reaching and maintaining a healthy body weight limit).

The study data regarding the level of overweight in the examined females with binge eating disorder, determined by measuring the subjects' body mass index, appears to bear resemblance to the results of the research described in the subject literature [10, 15, 38, 39]. Therefore, it can be assumed that binge eating is likely to contribute to development of overweight and obesity, as well as reduce the effectiveness of treatment of the aforementioned conditions [19]. Obesity, in turn, is believed to have a negative impact on the effective course of treatment of many acute and chronic medical conditions such as diabetes, arterial hypertension, atherosclerosis, or cancer [20, 40].

Formal and structural analysis of the drawings pointed to the proper level of body schema as well as maintained body boundaries in the group of 30 examined females.

Analysis of the data collected as a result of this research revealed a significant discrepancy between the current and ideal self-image in the examined group of females. This, in turn, can be interpreted as low body self-evaluation and lack of satisfaction with one's own body, which consequently triggers negative thoughts about the body. This finding corroborates the ideas of Thompson, described in the subject literature, who claims that the constant comparison of an individual's actual body shape and the ideal body image has a negative effect on the development of a cognitive and emotional aspect of body image [22, 31, 32, 33].

According to Higgins's theory, the discrepancy between the actual and ideal body image leads to the feeling of emotional discomfort which takes the form of chronic distress syndrome whose symptoms include such emotions as fear, anxiety, tension, irritation, sadness, dejection, despondency, or dissatisfaction [34]. The research findings described in the subject literature prove that the discrepancy between the person's evaluation of the current self image ("what I look like") and the ideal one ("what I would like to look like") stems from the individual's experience of social anxiety and such negative emotions as anger and resentment towards other people [33].

The participants' mean score in the scale describing the level of body dissatisfaction had a percentile rank of 55, calculated using the percentile norms constructed for the purpose of the author's research conducted in a population of Polish females. If the raw score was interpreted using the temporary percentile

norms established by Cezary Żechowski for the Polish version of the EDI inventory adapted in 2008 for a population of females aged 14-20, it would rank higher than in the 60th percentile. The aforementioned difference may result from many factors, including the criteria for the selection of research participants in both groups (e.g. age) as well as age-related differences in the subject's emotions and the level of their social development. The control group in the research conducted by Żechowski consisted predominantly of young females aged 14 to 20. Whereas the women who participated in the study carried out by the author of this paper were definitely older, their age ranged from 21 to 25. It can be assumed that due to the age difference, the individuals in the two research groups exhibited different levels of internalization of socio-cultural norms concerning attractive female appearance, which might stem from different degrees of media exposure in the two samples. Another consequence of the age difference between the examined females is the fact that they are at different stages of the process of social development (e.g. the phase of teenage rebellion, separation and individuation accompanied by the process of creating a sense of identity, or the stage of gaining emotional and social maturity). The aforementioned factors seem to predict different levels of body dissatisfaction in the two research groups. Consequently, the norm levels for the scores received by teenagers are lower than those applied in the group of adult females who participated in the research conducted by the author of this paper. The results of the research conducted by Garner, Thompson and Cash, demonstrate that such elements as excessive concern with physical appearance, and negative evaluation of self-image are major contributors to the development of eating disorders [22, 23, 24, 31, 32].

The results of the current study denote an increased level of dissatisfaction with one's own body among the research participants, that is to say, with its size and shape. It was observed that the subjects were predominantly dissatisfied with such body parts as stomach, hips, thighs and buttocks. Analysis of the data gathered as a result of American research [23, 24] indicated that the score in the 55th percentile was obtained both in the clinical sample of females suffering from eating disorders and in the group of the study participants who did not display any symptoms of disordered eating. It can thus be suggested that majority of women, both those with or without eating disorders, exhibit a considerably increased level of body dissatisfaction. This, in turn, points to the fact that body dissatisfaction seems to be endemic among Western European women. The results of the study conducted by Garner indicate that the body dissatisfaction scale correlates positively with body weight, especially in the group of young females with or without eating disorders.

The mean values received by the study participants in the pressure scale as well as in the scale of internalization of socio-cultural norms denoted that the examined individuals remained under substantial influence of cultural patterns which shape the standards of the ideal female body and attractive appearance. The amount of media exposure in the examined population of females proved to be relatively significant. It was found out that the subjects were considerably susceptible to the media pressure to conform to the standards of an attractive female body shape. Exposure to the stimuli transmitted through the media was found to have a significant impact on the level of body dissatisfaction in the examined group of females.

Analysis of the research data obtained as a result of the EDI inventory, aimed at diagnosing the level of selected psychological traits exhibited by the examined females revealed that the subjects received the highest (inappropriate) mean score in the scale describing the individuals' preoccupation with pursuit of thinness. Analysis of the data collected in the research population demonstrated excessive (inappropriate) increase in the level of the following psychological traits:

– interoceptive awareness – the score pointed to the participants' inadequate ability to recognize and respond to the occurring emotional states and body sensations;
– ineffectiveness – the score indicated excessive feelings of personal inadequacy, worthlessness and insecurity;

– interpersonal distrust – the score proved that the study participants experienced enormous difficulties in establishing emotional bonds with other people, and expressed distrust in interpersonal relationships;
– perfectionism – the score denoted the tendency to hold exceptionally high expectations, and to express submissive compliance in order to gain personal achievements, which proved to be the main priority in life.

On comparison, the research subjects scored slightly lower in the scales describing the following psychological traits:

– bulimia – the score indicates the tendency towards excessive preoccupation with weight and food control;
– maturity fear;
– body dissatisfaction.

An interesting finding is the fact that the mean score obtained by the study participants in the Body Dissatisfaction scale diverges from the one which the examined females received in terms of the level of Drive for Thinness. Such factors as the configuration of average scores obtained in the other EDI scales, as well as a decidedly higher, inappropriate level of preoccupation with pursuit of thinness, coupled with a considerably lower score received in the Body Dissatisfaction scale may prove that the examined females subconsciously "block out" the impact of a poor body image and the negative emotions regarding the body on their psychological functioning. The individuals openly (consciously) strive for thinness. They display a pronounced fear of weight gain, and are preoccupied with thoughts about weight and food control as well as the need to get a slim body. Simultaneously, however, the females subconsciously deny that they are dissatisfied with their current body shapes. This is pointed to the mechanism of reaction-formation.

The aforementioned finding is confirmed by the data obtained as a result of the Thompson's Figure test, which reveals the significant discrepancy between the actual and ideal body image among the study participants.

The mean values obtained by the research subjects in the scale of Ineffectiveness denote the feeling of insecurity and personal worthlessness, as well as a low level of interpersonal trust, and difficulties the individuals experience in establishing interpersonal bonds. This in turn demonstrates the impact of self-evaluation and self-image on the females' psychological functioning and attitudes towards the body and eating. The hypothesis concerning the contributory role of negative self-evaluation in the development of binge eating disorder has been supported by the studies conducted by such researchers as Garner [23] or Strober [41].

An interesting finding to emerge from this study is that increased perfectionism in the examined females is discovered to co-occur with an inappropriately low level of their interoceptive awareness of body sensations. This points to the fact that on the one hand the subjects exhibit a tendency to hold exceptionally high expectations, and to live up to the highest possible standards in order to gain personal achievements in life; on the other hand the individuals possess poor ability to recognize and respond to emotional states and body sensations. Increased perfectionism and a decreased level of interoceptive awareness, coupled with low self-evaluation and low interpersonal trust, act as stimuli to binge eating, regarded by the individuals as a strategy aimed at releasing their suppressed emotions and subconscious inner conflicts.

The females' poor ability to recognize and respond to emotional states and body sensations is likely to trigger their impulsivity, that is to say, to affect the frequency of binge eating cycles and compensatory behaviours (e.g. induced vomiting). A significant role of such factors as increased perfectionism and a low level of interoceptive awareness of body sensations in the development of eating disorders has been emphasized by Bruch [42] as well as other contemporary researchers [43, 44].

Taken together, the results of this study suggest that the examined females diagnosed with BED proved to exhibit a high level of body dissatisfaction and a low level of interoceptive awareness. They were also found to exhibit the feeling of personal worthlessness as well as a low level of interpersonal trust. Moreover, it was discovered that the study subjects remained under a strong influence of sociocultural standards and norms about the body,

which proved to affect the individuals' functioning and perception of their own bodies.

Biographical interviews with the research participants revealed that the examined individuals had been overweight (as a consequence of overeating) for at least a few years, or since childhood. They were frequently regarded as plump children. Thus the subjects had sufficient time to internalize the socio-cultural standards of a slim female body, promoted by the media. The results of this study demonstrate that the configuration of psychological traits in the examined individuals, together with the internalized thinness norms, is the factor which intensifies the females' destructive attitudes towards the body and eating. It can therefore be assumed that the particular psychological traits investigated in the study, accompanied by the psychological mechanism of emotional eating, do not contribute to achieving significant therapeutic effects within a short period of time. A psychological diagnosis of body image characteristics combined with an examination of dominant personality traits in individuals suffering from binge eating disorder might be a significant element of treatment process.

CONCLUSIONS

Due to the limitations of the current study, acknowledged earlier in this paper, it is recommended that further research be undertaken in the area investigated by the present author. It is suggested that further investigations should be conducted in a larger clinical sample of individuals diagnosed with BED, which would allow to verify the data received in a group of subjects characterized by a high level of heterogeneity. It is strongly recommended to include a clinical sample in possible future studies.

However, the findings of this study have certain implications for the treatment of patients with binge eating disorder. The results of the current research suggest an eclectic approach to treatment for BED. Taking into account significant heterogeneity of BED sufferers in terms of personality structure (e.g. borderline or neurotic personality) and the factors underlying the eating disorder they suffer from (e.g. depression, anxiety, anger), as well as its consequences such as overweight or obesity, it is suggested that the individuals require complex treatment which should combine such methods as psychodynamic (group or individual) psychotherapy, long-term, cognitive-behavioral, interpersonal, or family systems therapy.

It can be assumed that more severe symptoms of BED are likely to occur in patients with a borderline level of personality organization which seems to affect intensity of emotions the individuals experience (e.g. anxiety, anger, or depression), and the level of their interoceptive awareness, perfectionism, self-worthlessness, body dissatisfaction and interpersonal distrust. Therefore such patients would require long-term psychodynamic psychotherapy.

In case of patients with a neurotic level of personality organization it is important that the treatment for BED should include the techniques which would provide an opportunity to intensify and accelerate the process of developing insight into the mechanisms underlying compulsive overeating (emotional eating).

Another factor which should be taken into consideration in the treatment of patients diagnosed with BED is the level of their overweight or obesity. Individuals at higher levels of obesity are likely to require more complex methods of treatment for BED.

The current study was conducted in a group of females diagnosed with binge eating disorder, whose level of overweight proved to be relatively low. Hence, psychodynamic insight therapy, combined with elements of cognitive-behavioral therapy (including psycho-education and the strategies of coping with stress and emotional eating), seems to be the most effective treatment method in the aforementioned group of patients. It can help the individuals become aware of the inner conflicts and suppressed emotions which they try to "eat up", and thus facilitate the process of treatment. Duration of psychodynamic group or individual psychotherapy should depend on the patient's level of personality organization as well as the person's defense mechanisms. The present study subjects exhibited

a very low level of overweight; therefore no medically supervised diet should be included in the process of their treatment. Nevertheless, it should be added here that dietary interventions might have a positive impact on the therapy; however, they should not constitute a dominating form of treatment.

The results of the present research indicate that the examined females with BED develop cognitive distortions in the processing of body shape and weight information, and engage in dysfunctional eating behaviours [45]. Therefore, it is suggested that elements of cognitive-behavioral therapy should be included in the process of their treatment. A number of studies, described in the subject literature, have proved the effectiveness of cognitive and behavioral techniques in the treatment of patients suffering from binge eating disorder [45].

The fact that the examined females exhibit a low level of interpersonal trust points to the fact they require treatment which would include elements of interpersonal therapy focused on the individuals' current interpersonal experiences and their difficulties in establishing relationships with other people. The main goal of such therapy is to improve the patient's current interpersonal functioning and reduce the symptoms of the eating disorder the person suffers from [46]. Group therapy seems to have a positive impact on the effectiveness of the treatment process.

The results of the current study seem to be consistent with other research findings described in scientific references, which demonstrated that inappropriate level of personality characteristics exhibited by individuals diagnosed with BED is not regarded as the only factor affecting the choice of treatment methods in the aforementioned eating disorder, and it is recommended to take into account the patient's level of obesity.

BED sufferers tend to follow a less restricted diet even during the periods when they do not engage in binge eating episodes [45]. Individuals suffering from BED frequently go between periods of binge eating and strict dieting. In an effort to reduce weight, binge eaters resort to overly restrictive diets which are likely to last for a few days, weeks, months or even years. With long periods of abstinence from indulgent foods, the natural desire and craving for food increases and becomes difficult to control, which leads to further cravings to binge, and consequently to weight gain. Thus, restricted eating patterns turn out to be ineffective behavioral strategies for weight management.

It is believed that dysfunctional eating behaviours exhibited by patients with BED have a significant impact on the course of the aforementioned eating disorder. Therefore therapists working with obese individuals suffering from BED should help their patients strengthen dietary restraint and develop long-term self-regulation of food intake, based on realistic expectations and taking into account attainable goals. A crucial fact is that binge eating occurs not only as a consequence of dysfunctional eating behaviour, but it is a strategy which individuals adapt in an attempt to reduce negative affect and cope with stress [45].

Psycho-education seems to be an important intervention for obese individuals with BED. The therapy which involves educating patients about genetic and biological factors of obesity may prove extremely helpful in debunking culturally influenced false beliefs about obesity, commonly associated with lack of willpower and negative personality traits [45]. Due to an increased risk of numerous health problems in obese individuals diagnosed with BED, their treatment should incorporate complex dietary and therapeutic interventions aimed at weight control. The primary goals of cognitive-behavioral therapy for BED sufferers should include such objectives as: eliminating the unhealthy habit of binge eating, fostering self-acceptance, and effective weight management. Hence the necessity to create treatment programmes designed for both obese patients and binge eaters [45].

Another factor which should be taken into account when selecting effective methods of treatment for BED is the fact that individuals diagnosed with this disorder experience recurrence of the disease. In order to prevent recurrent binge eating episodes in the future, the therapist should help the patient recognize the goals he or she successfully attained, as well as devise a method of sustaining the positive therapeutic effects, and develop a strategy the patient could adapt in order to cope with his

or her dysfunctional behaviours and avoid recurrent episodes of binge eating [19, 45].

It is suggested that interpersonal psychotherapy focused on the current interpersonal experiences of an individual and on his or her difficulties in establishing relationships with other people should also be incorporated in the treatment for BED. This form of therapy does not focus only on the symptoms and the patient's destructive eating habits but also addresses the root causes of the problem.

Therefore, it seems that the treatment of individuals diagnosed with for BED may provide the patients with the ability to reduce negative affect that is likely to trigger binge eating disorder [46].

In general, therefore, it seems that there are numerous methods of treatment for binge eating disorder. The choice of appropriate therapy should be determined by clinical characteristics of patients and the effects of previously applied methods of treatment. Accordingly, obese individuals exhibiting mild-to-moderate symptoms of binge eating disorder should receive psycho-education. Obese binge eaters who suffer from more severe symptoms require dietary interventions combined with either cognitive-behavioral or interpersonal therapy, depending on whether the prevailing problem in this group of patients is related to their dysfunctional eating habits or interpersonal issues that contribute to the individuals' compulsive overeating.

Overall, it is important that duration and a model of therapeutic interventions for binge eating disorder are not determined solely by severity or frequency of compulsive overeating. The selection criteria for appropriate treatment methods should also include the level of personality organization exhibited by BED sufferers as well as inner conflicts they experience.

The evidence from this study suggests that an effective treatment programme for binge eating disorder should address more than just symptoms of destructive eating habits and obesity. It should also focus on psychological traits exhibited by the patients diagnosed with BED. Therapeutic interventions aimed at addressing emotional sphere seem to be a significant element of treatment for BED. A considerable number of studies prove that eating disorder symptoms act as affect regulation strategies. Hence the necessity to incorporate emotion regulation training into eating disorder treatment. It is worth noticing that there is a close link between eating disorders and affective vulnerabilities, which tend to reinforce each other. Therefore, positive effects of treatment for disordered eating are likely to contribute to the improvement of the person's affect regulation skills, and vice versa. Taking into account distinct personality profiles of BED sufferers, it seems crucial to provide complex treatment programmes tailored to the needs of each individual.

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