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### Exploring the relationship between the body self and personality defence mechanisms in women with bulimia nervosa

**Abstract** *This study investigated the relationship between disorders of the body self and personality defence mechanisms of women with bulimia nervosa. It was hypothesized that women with bulimia nervosa would not form a homogeneous group in terms of the body self disorder and that the extent of this disorder would be significantly related to personality functioning in terms of the defence styles adopted. The hypothesis was investigated with the aid of two questionnaires: the Body Self Questionnaire (Mirucka, 2005) and the Defence Style Questionnaire by Andrews, Singh and Bond (1993). 36 women aged between 15 and 25 years, who fulfilled the DSM IV criteria for bulimia nervosa participated in the study. Conclusions from the study were that: (1) the body self of bulimic women is differentially disordered at three levels: profound, moderate and minimal. (2) the degree to which the body self was found to be disordered is significant in psychological terms as it is related to the defence style adopted by the bulimic personality. The profound and moderate levels of body self disorder related to immature defence styles, while minimal levels of disruption to body self were associated with neurotic and mature styles.*

**Key words:** *body self, the fragmentation of self, defence mechanisms, bulimia nervosa*

According to the latest psychodynamic conceptualizations, a fundamental characteristic of women with eating disorders is their incoherent and possibly even fragmented self (Giordana, 2005; Lawrence, 2009; Legrand, 2010). The divisions in the system of self most frequently affected are two antagonistic components: the ideal self and the defective self. The first of these is associated with activity, self-control and independence; the second encompasses the negative characteristics of the individual, including all types of shortcomings and defects, which are transferred to the level of body perception and subsequently painstakingly concealed (Reich, Cierpka, 1998; Sugarman, 1991). The ideal and defective self – in so far as they are antagonistic components – remain in conflict with each other (a conflict of identity), which manifests itself in the form of bulimic symptoms, including: repeated episodes of binge eating, engaging in dysfunctional compensatory behaviours, excessive concentration on external appearance. Any increase in weight becomes a frustrating experience for women with bulimia and evokes strong feelings of anxiety and shame (Reich, 1992; Silberstein, Striegel-Moore,

1987), since it is treated by them as a disclosure of the defective self. According to psychodynamic theory, bulimic symptoms represent an expression of the level of conflict between antagonistic subsystems of the self: the ideal self usually being identified with the psychic self whilst the defective self is identified with body self. It is quite likely that they may equally occur in women who function within normal limits as well as in those who clearly present with personality disorders (Reich and Cierpka, 1998).

Within the psychodynamic approach, the origins of the fragmentation of the self and the formation of antagonisms between its individual parts – between the psychic self and the body self – are sought in particular in traumatic experiences from the early childhood years. Prominent among these are: difficulties in the early mother-child relationship and the experience of various forms of abuse (physical, psychological and sexual). These and other forms of psychological trauma create significant disturbances in one of the fundamental mechanisms of psychological development, namely the process of separation and individuation (Krueger, 1989). In situations in which this process is dis-

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turbed in women with bulimia, the formation of the self in all of its aspects is impeded. The separation stage at which the individual starts to function as a separate physical (body self) and psychological being (psychic self) is not attained. Mother and child remain in a symbiotic relationship, and as a result, the role of the transient object remains unfulfilled. The only change that occurs is in the entity that fulfills the role of the transient object. Alongside the soft toys and comfy blanket, the body and its parts „appear” (Winnicott, 1951; Krueger, 1989; Sugarman, 1982, 1991). In these circumstances the body (body self) is identified with the mother – it forms, as it were, her substitute – whilst the mind (psychic self) clearly remains the child’s own psychological space. This leads to the fragmentation of the self and triangulation of the body (body self). In the triangle of the relationship between the mother and individual, divided aspects of the self (the mother – the psychic self – the body self), the body takes on the form of a specific medium, upon which negative emotions and feelings are projected (defective self). Thanks to this medium, and through it, the tensions and anxieties arising from the mother-child relationship are discharged. In this way, triangulation leads to the perception of one’s own body as an external, alien object (“non-self”) and to its treatment as a utilitarian object, instead of gaining experiences within the framework of the integrated self (Plassmann, 1994; Zerbe, 1993a, 1993b).

It may be assumed that in women with bulimia nervosa, a barrier to effective functioning of the self is most likely, the significantly disturbed – to the point of becoming isolated from the structure of the personality – body self, which releases constant feelings of threat and anxiety. Under circumstances where the self is threatened, the subject acts in a way specific to herself, taking advantage of the defence mechanism at her disposal (Shapiro, 2000). The intensity of the defence mechanisms that are launched is a function of the degree to which the self is perceived to be under threat (Grzegołowska-Klarkowska, 1989), i.e. a greater perceived threat mobilizes a greater number of defence mechanisms or mechanisms that are even more “radical”. It is likely that there exists a certain critical level of threat above which the entire system of defences breaks down and the psychotic mechanisms of fragmentarisation are mobilised.

Defence mechanisms which serve to reduce levels of anxiety and perceived threat differ among themselves in terms of the level of maturity they represent. This maturity is defined in terms of the degree to which the representation of reality has been deformed (Vaillant, 1971). Andrews, Singh and Bond (1993) propose a three level hierarchy of defence mechanisms – ranging from the most mature level, through the neurotic level to the immature level. The allegedly significant dysfunction in the structure of the body self fulfills the role of the precipitating factor in the defence system of the self, whilst the degree of dysfunction in the body self is the deciding factor in determining the intensity and type of defence mechanisms that are mobilized.

It was hypothesized that bulimic women would not be a homogeneous group in the sense of the body self disorder and that the level of this disorder would be significant as a way of personality functioning in terms of defence styles. The degree to which the body self is affected by the disorder will determine the extent and type of defence mechanisms that are invoked. The aims of the research therefore include: (1) exploration of the body self in women with bulimia nervosa, (2) determining the relationships that exist between the degree of the disorder affecting the body self and personality defences in women with bulimia nervosa, that is, the type and strength of the defence mechanisms employed.

## Method

### Subjects

36 women who fulfilled the DSM IV criteria for bulimia nervosa and in whom the bulimic episodes had been present for widely varying periods of time (from six months to eight years) participated in the study. The largest subgroup (38.89% of the women examined) reported that they had a cyclical pattern of binge eating and/or purging over a period of less than one year. The women were aged between 15 and 25 years (mean age 20.3 years). The majority of the women from the main subgroup were resident in cities (94.4%), the remainder, i.e. 2 women (5.6%), lived in smaller towns. All of the women examined were single and none of them had children. The group varied considerably with respect to the women’s occupations. Among them were students of different disciplines including law, Polish, education, economics, medicine, mathematics etc., (50%), high school students (33.3%) and women in tertiary level (non-university) education (8.3%). One participant, having completed a course of higher education was employed professionally. Two participants, having completed their school education, remained at home, but had not undertaken further studies or any paid employment.

## Measures

### Interview for the Diagnosis of Eating Disorders – IV (IDED-IV; Williamson, 1998)

A characteristic property of the IDED-IV is that it requires the assessment of symptoms on scales that are directly related to the diagnostic criteria of DSM IV. The IDED-IV consists of two main parts: the first – dealing with general information (past history of the eating disorder, psychiatric treatment, current eating patterns, basic family information etc.) and the second – consisting of three subscales: anorexia nervosa, bulimia nervosa and binge eating. The task of the therapist is to assess 20 symptoms on a 5-point scale according to their frequency of occurrence and level of intensity.

### The Body Self Questionnaire (BSQ; Mirucka, 2005)

The Body Self Questionnaire (BSQ) represents an attempt to operationalise the concept of body self, which is treated as a basic subsystem in the structure of the entire system of self, which is fundamental in determining the person's identity – feelings of continuity, uniqueness and integrity as a whole. The body self is defined as the way of experiencing oneself together with one's sexuality, in terms of one's own body and as the sum of concrete body experiences – conscious and unconscious – that are mirrored in the body image each person possesses.

The scale consists of 41 test items, assigned to four scales: acceptance of one's body (Scale A), experience of intimate relationships with members of the opposite sex (Scale M), disclosure of femininity (Scale F) and relationship towards eating and body weight (Scale E). These four scales are considered to represent the dimensions of the body self, and were identified with the help of factor analysis techniques.

The questionnaire has high criterion validity, namely 0.723 for the entire instrument, whilst the subscales have the following co-efficients: Scale A=0.78, Scale M=0.58, Scale F=0.29 and Scale E=0.43. Reliability, defined on the basis of the co-efficient of internal consistency (Cronbach's alpha), for the whole scale is 0.93, and for the individual subscales: Scale A  $L_A=0.89$ , Scale M  $L_M=0.88$ , Scale E  $L_E=0.83$  and Scale F  $L_F=0.74$ . Split half reliability as determined by the Guttman method (Guttman split-half) and the Spearman-Brown method (Unequal-length Spearman-Brown) shows equivalence and is 0.83, while for the first half it is 0.90, and for the second half it is 0.88 (Mirucka, 2005).

### Defense Style Questionnaire (DSQ; Andrews, Singh & Bond, 1993)

The Defense Style Questionnaire is intended to measure preferences in relation to defence styles, which are revealed in the system of attitudes and beliefs of the individual. With reference to Vaillant's conception, the authors of the DSQ propose a three-stage hierarchy for defence mechanisms – from the least to the most mature. The first level, the so-called mature factor, consists of four mechanisms, namely: anticipation, humor, repression and sublimation. The second level, the so-called neurotic factor includes: pseudoaltruism, idealization, reaction formation and undoing. The final level, the so-called immature factor, relates to 12 defence mechanisms: acting out, denial, devaluation, displacement, dissociation, schizoid fantasies, isolation of affect, passive aggression, projection, rationalization, somatization, splitting (Andrews et al., 1993).

The questionnaire consists of 40 statements, the truth of which is rated according to a 9-point scale (from 1-definitely disagree to 9-definitely agree). An index for the individual defence mechanisms is the mean score attained in

respect of two statements which reflect the particular defence mechanism. The overall score for each of the three levels is obtained by calculating the mean value of the indices for the defence mechanisms comprising each level. The minimum score possible is thus 1 and the maximum score is 9.

The authors of the DSQ provide the following psychometric properties for the questionnaire. Reliability coefficients are given for each of the three levels: mature – 0.68, neurotic – 0.58, immature – 0.80. Test-retest reliability for the mechanisms is respectively: mature – 0.75, neurotic – 0.78 and immature – 0.85 (Andrews et al., 1993). Studies carried out with Polish subjects have demonstrated split-half reliability to be (respectively): 0.46; 0.6 and 0.78. Alfa Cronbach coefficients are reported as being: 0.39; 0.56 and 0.73 (Bogutyn, 1995).

## Results

### The body self in women with bulimia nervosa

The overall score attained in the scale of body self was treated as an indicator of the degree to which the body self was disrupted. The women were divided into three subgroups, A, B and C according to their overall scores on the BSQ. Three levels of overall score were defined as: low, medium and high. Low scores were taken to be overall scores in the range (7-64). Medium scores were defined as lying in the range (65-122) whilst high scores were from (123-181). The three levels of scores defined, correspond to different degrees of disruption in the body self. Low levels indicate a profound degree of disruption (group A), medium levels, a moderate degree (group B) and high levels, an insignificant degree of disturbance in the body self (group C).

Table 1. Levels of overall score on the BSQ and degree of disturbance in body self in the group of women suffering from bulimia nervosa

Group	Range on overall scores	Level of overall scores	Degree of disturbance in body self	Number of people	Percent (%)
A	7-64	low	profound	13	36.12
B	65-122	medium	moderate	16	44.44
C	123-181	high	insignificant	7	19.44

There were 13 women with bulimia nervosa in group A, the group with a profound degree of disturbance in body self. The largest group was group B, with a moderate degree of disturbance in body self, which contained 16 women. The smallest group, containing just 7 women with bulimia nervosa was group C, characterized as having an insignificant degree of disturbance in body self.

Members of **group A** experience themselves as disintegrated beings, in whom the body is in opposition to the

self and is the source of negative feelings. The body (their external appearance) is, in their view, a specific kind of restraint, and the cause of dissatisfying relationships with others. In particular, they assign extreme negative meanings to gender and to all signs of femininity. As a result they have a clear distaste for thinking of themselves in female categories, indeed rejecting their femininity altogether. In their relationships with men they experience severe anxieties, and in particular, their levels of agitation rise when situations create the potential for close, intimate contact. In rejecting their bodies, and at the same time their femininity, they become preoccupied with thoughts of food, their appearance and their weight. This preoccupation often takes the form of obsessional thinking, from which they are unable to escape without external help.

The women in **group B** (with a moderate degree of disturbance in body self) are unable to accept their bodies and their femininity. They treat their bodies and their appearance as an imperfect reflection of themselves. They try to expose their femininity to a moderate extent, but their concerns about what and how much they eat, clearly impede their functioning in most spheres of life. They experience discomfort and anxiety in relations with members of the opposite sex, which they attribute to their external appearance.

In women with bulimia nervosa in **group C**, the body self is much less disturbed and their preoccupations are much more with activities focused on taking care of their appearance, and is expressed mainly in their exaggerated attempts to control their weight and concerns with dieting. They do not, however, consider themselves to be unattractive and so they have no difficulties in exposing their femininity and forming close relationships with men. In comparison with group B, they lay claim to a higher acceptance of themselves and their own bodies.

The mean scores were calculated for the four scales of the Body Self Questionnaire (raw data) and their configuration representing the structure of the body self, for groups A, B and C defined according to the degree of disturbance in the body self (see table 2. and figure 1.).

As can be seen from figure 1, the profile of the scales in groups B and C is very similar. Scale F (displaying femininity) is most prominent alongside Scale F (experiencing intimacy with members of the opposite sex) whilst Scale E (attitudes to food and body weight) is least evident in the overall configuration. Nevertheless, the mean values for the constituent scales are significantly higher in group C than in group B (table 2.). The configuration of the scales for group A is also clearly dominated by Scale F, as compared to the three remaining scales. The differences between groups A, B and C with respect to the results obtained for the four scales of the Body Self Questionnaire and their respective levels of significance are shown in table 2. All the differences between groups are significant.

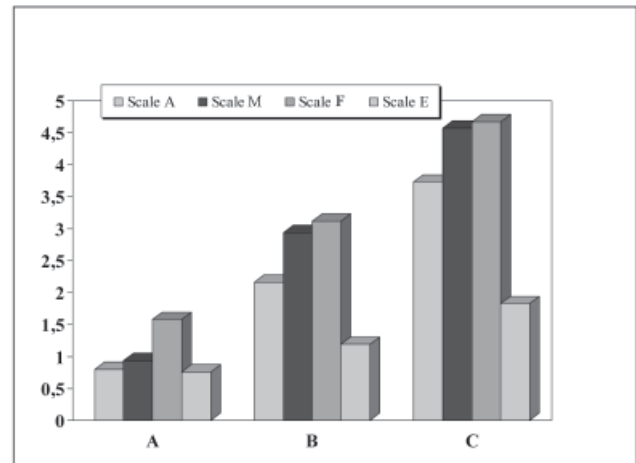


Figure 1. Structure of the body self in groups A, B & C

Tabela 2. A comparison of the results obtained on the scales of the Body Self Questionnaire for the three groups: results of the MANOVA

Scale	No of items in scale (N)	Means (M) & standard deviations for the groups						Significance level		
		A	A - M/N	B	B - M/N	C	C - M/N	F	p	Groups
Scale A	13	10.38 6.83	0.8	28.06 11.44	2.16	48.43 11.03	3.73	34.27	0.000	A-B,A-C, B-C
Scale M	12	11.23 7.05	0.94	35.25 10.12	2.94	54.86 7.69	4.57	61.99	0.000	A-B,A-C, B-C
Scale F	6	9.46 6.7	1.58	18.69 7.23	3.12	28 2.08	4.67	19.95	0.000	A-B,A-C, B-C
Scale E	10	7.62 5.09	0.76	11.94 5.63	1.19	18.29 6.05	1.83	8.55	0.001	A-B,A-C, B-C

MANOVA: F (2.33) = 10.49; p < 0.000

### Defence mechanisms and the level of disruption of body self

The next part of the study was focused on determining the relationship between the degree of disturbance in the body self in women with bulimia nervosa and their personality defences, that is, with the type and extent of defence mechanisms employed. An analysis of variance was used to examine these relationships, the results of which are presented in the following table.

The results demonstrate that there are indeed significant differences between groups A, B and C in the scales measuring neurotic (MANOVA,  $F(2.33) = 2.28$ ;  $p < 0.05$ ) and immature mechanisms (MANOVA,  $F(2.33) = 1.77$ ;  $P < 0.05$ ). There are no significant differences between the groups as far as mature mechanisms are concerned.

A more detailed analysis of the results in relation to individual defence mechanisms shows that groups, A, B and C only differ significantly with respect to three mechanisms.

Table 3. Comparison of the three groups on the Defense Styles Questionnaire: MANOVA results

Defence mechanisms	Means & standard dev.			Significant differences	
	A	B	C	F	Groups/d Cohena
<b>I. Mature</b>	<b>15.35</b> 5.99	<b>17.91</b> 5.52	<b>20.00</b> 5.71	<b>1.64</b>	
Anticipation	4.65 2.52	5.22 1.25	6.36 1.38	1.96	
Humor	3.54 1.65	4.13 1.73	4.79 2.40	1.07	
Suppression	2.96 1.43	3.69 2.16	4.43 2.35	1.32	
Sublimation	4.19 2.39	4.88 2.51	4.43 2.01	0.30	
MANOVA: F(2,33) = 0.46; n.s.					
<b>II. Neurotic</b>	<b>19.85</b> 5.00	<b>19.53</b> 5.89	<b>18.50</b> 6.12	<b>0.13</b>	
Pseudoaltruism	5.38 2.25	5.63 1.78	6.00 1.76	0.22	
Idealization	3.73 1.64	3.72 2.34	2.64 2.54	0.74	
Reaction formation	6.04 1.68	4.78 2.01	6.21 2.12	2.12	
Undoing	4.69 2.19	5.41 1.91	3.64 1.99	1.87	
MANOVA: F(2,33) = 2.28; p<0.05					
<b>III. Immature</b>	<b>63.08</b> 9.71	<b>61.69</b> 11.13	<b>52.00</b> 19.28	<b>1.94</b>	
Acting out	5.58 2.51	6.63 2.13	5.21 2.45	1.19	
Denial	3.38 2.00	3.22 1.93	3.21 2.06	0.03	
Devaluation	4.77 2.39	3.81 2.24	3.57 1.77	0.92	
Displacement	5.58 2.47	6.38 1.60	5.14 2.48	0.99	
Dissociation	3.42 1.19	3.75 2.00	4.50 2.29	0.81	
Schizoid fantasies	<b>7.85</b> <b>1.52</b>	<b>5.84</b> <b>2.49</b>	<b>5.14</b> <b>3.33</b>	<b>3.81*</b>	A-C (d = 0,84) A-B (d = 0,78)
Isolation of affect	6.81 2.22	5.31 1.99	5.21 2.78	1.93	
Passive aggression	5.35 2.49	4.38 1.69	3.29 2.45	2.14	A-C
Projection	5.08 1.93	4.69 1.92	3.79 2.84	0.85	
Rationalization	<b>4.12</b> <b>1.73</b>	<b>5.94</b> <b>1.73</b>	<b>5.00</b> <b>1.78</b>	<b>3.94*</b>	A-B (d = 1,02)
Somatization	6.23 1.80	6.59 1.83	4.79 2.45	2.14	B-C
Splitting	<b>4.92</b> <b>1.50</b>	<b>5.16</b> <b>1.85</b>	<b>3.14</b> <b>1.70</b>	<b>3.61*</b>	A-C (d = 0,78) B-C (d = 0,91)
MANOVA: F(2,33) = 1.77; p<0.05					

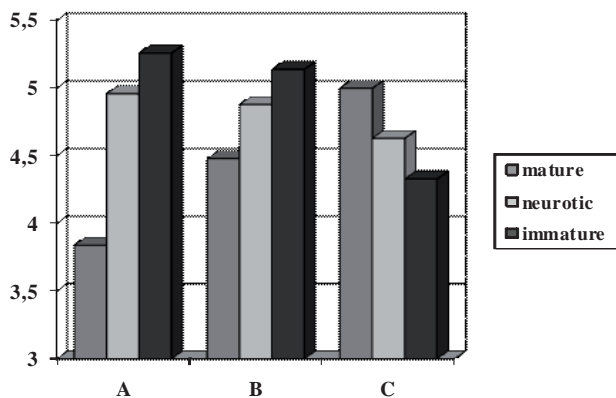


Figure 2. Comparison of means of overall scores for the groups A, B & C in three scales of defence mechanisms

These are: schizoid fantasies (statistically significant differences hold for groups A-C and groups A-B), rationalization (groups A-B) and splitting (groups A-C and B-C). All three of these defence mechanisms are classed within the group of immature defences.

When the whole system of defence mechanisms is taken into account, that is, the entire configuration of scales: mature, neurotic and immature, differences between the groups become evident, as shown in the following figure.

For groups A and B the construction of the defence mechanism scales is similar. The highest scores reflect immature mechanisms (Ma=63.08 and Mb=61.69). Neurotic mechanisms appear lower down in the configuration (Ma=19.85 and Mb=19.53), whilst the mature mechanisms are at the lowest point (Ma=15.35 and Mb=17.91). At the same time, the results on the scales (especially for those scales measuring immature and neurotic mechanisms) for groups A and B are very similar.

The configuration of the defence mechanisms scales for group C is different from the other two groups. The dominant scale, reflecting the highest scores is that measuring mature mechanisms (Mc=20). Neurotic mechanisms fall into second place in the configuration of scales (Mc=18.5) and finally come immature mechanisms (Mc=52).

In the psychological analysis, it is worth drawing attention to the highest scores for the 20 defence mechanisms examined, that is, those dominating the personality defence system.

In group A (with a profound degree of disturbance in Body Self) mechanisms appearing with highest frequency were: schizoid fantasies (M=7.85), isolation (M=6.81) and somatisation (M=6.23). They are all immature defence mechanisms. In group B (with a moderate degree of disturbance in Body Self) dominant mechanisms in the defence system were: acting out (M=6.63), somatisation (M=6.59) and displacement (M=6.38). All of these mechanisms are classified as immature. In group C (with an insignificant degree of disturbance in Body Self) the defence mechanisms most frequently encountered were: anticipation (M=6.36), simulation (M=6.21) and pseudoaltruism (M=6). These mechanisms are classified as mature (anticipation) and neurotic (simulation and pseudoaltruism).

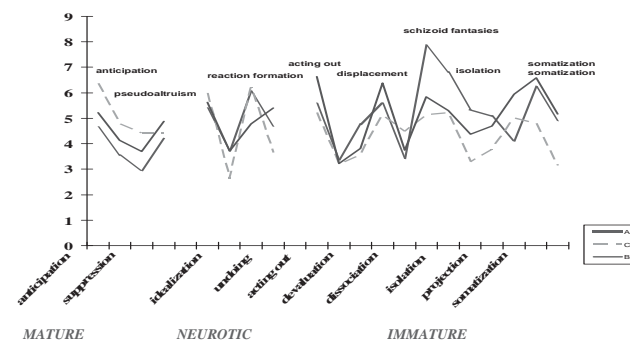


Figure 3. Mean profiles of 20 defence mechanisms for groups A, B & C

## Discussion

The results of the study confirmed the assumption that the intensity and type of the defence mechanisms mobilised depends on the level of disruption in body self. This relationship holds above all, for the immature defence style, which significantly differentiates the three groups A, B and C (MANOVA:  $F(2, 33) = 1.77$ ;  $p < 0.05$ ). No statistically significant differences were found for the two remaining defence styles: mature and neurotic. This would seem to indicate that women with bulimia tend to mobilize primarily immature defence mechanisms in response to increasing levels of disruption in body self. Escalation in the intensity of this defence style is related in the first place to such mechanisms as: schizoid fantasies, dissociation and rationalization. Increases in intensity, especially of these three defences from the group of immature mechanisms is associated with strengthening of dysfunctional behaviours, the result of which is a deformed image of self, one's own body and images of other people, as well as excluding an ever increasing range of psychic experiences from consciousness, in particular those of an emotional nature (see classification of defence mechanisms according to DSM IV, APA, 1994).

The use of rationalization mechanisms by women with bulimia nervosa indicates the tendency to resort to logical or socially approved explanations of activities, attitudes, ideas and feelings, whose real motives remain unknown to them. The intensity and frequency of use of this defence differs between groups A and B (at a statistical significant level). This suggests that changes to the disruption in body self, from moderate to more severe levels of impairment, are associated with differences in the intensity of rationalization of hidden and unconscious motives for one's own behaviour.

In the case of schizoid fantasies for the purposes of emergency resolution of emotional conflicts, and in particular in order to control ever more extreme anxiety, women with bulimia submit to fantasies and autistic methods for fulfilling their wishes i.e. without the participation of others. These fantasies often take on the form of imagined or fictional events in which the person fantasizing assumes a key position (see Fhaner, 1996). In this way, they are able to release internal tensions, submitting to the illusions of the fantasy world, which in their eyes, is the real world. The level of intensity of schizoid fantasies in keeping with a deepening disruption of body self differentiates between groups A and B and A and C (see table 3.).

The final defence mechanism – one which changes significantly according to the degree of disruption body self in the group of women with bulimia nervosa – is dissociation. This mechanism from the immature group, is seen in the separation of feelings of reality into two parts, which is seen in a so-called double mental attitude. One is the so-called normal attitude, which takes account of the external world and the other, which under the influence of negative

emotions (e.g. anxiety) separates the ego from reality (see Freud, 1940; in: Fhaner, 1996). A sign of weakened or indeed totally severed relations with the surrounding world may be wishful or delusional thinking e.g. delusions on the theme of one's own body or figure. Continual and intensive use of the dissociation mechanism inevitably leads to a division of personality into two parts: one that is wonderful and perfect, and the other, empty and worthless (see Kernberg, 1975; in: Kuttler, 1998). According to the psychodynamic model, women with bulimia, the oppositional parts of the personality are the ideal self and the defective self. They remain in permanent conflict with one another, manifesting in the form of bulimic symptoms. Defensive tactics here depend on a permanent division of these two opposing psychological spheres. As a result, women with bulimia nervosa develop contradictory images of themselves, which take on reality in their imaginary world with the aid of schizoid fantasies.

Immature dissociation mechanisms and schizoid fantasies overlap in their sphere of activity. Thus according to DSM IV, they belong to the same adaptation level, the so-called level of *greater image deformation* (APA, 1994). These mechanisms are an indicator of clearly disrupted ways of personality functioning, placing the disorder in the area of borderline or even psychotic disturbances (see Kutter, 1998). It may thus be assumed that extreme disturbances in body self will be associated with deficiencies in the organization of personality in women with bulimia nervosa. These deficiencies may take the form of borderline personality disorders and in some extreme cases, psychotic disorders.

The results obtained are in agreement with previous research which demonstrate that a high proportion of women with bulimia (13-25% in out-patient groups and 19-40% of inpatients) are characterized by poor adaptation to reality, as expressed in the form of borderline personality disorders (Johnson, Wonderlich, 1992). In the case of the present study, it may be assumed that as many as 13 of the participants (36.1%) with a profound level of disturbance in body self would invoke an immature defence style, with the use of defence mechanisms such as: schizoid fantasies, dissociation and rationalization of striking intensity. As a consequence they develop borderline type personality disorders.

It is intriguing that the mechanism of rationalization exists alongside those of dissociation and schizoid fantasies. It may be, that the increasing intensity of this defence along with exacerbation of disturbances in the body self are an efficient form of protection against crossing the border between personality functioning at the level of borderline type disorders and disorders in the area of psychotic disturbances. A determined attempt to rationalize the unconscious motives behind one's behaviour, one's internal conflicts and dangerous emotions may be something of a barrier, preventing total disorientation and ways of perceiving the external world which are a significant departure from reality.

A detailed examination of the entire system of defence mechanisms reveals that in the groups with severe and moderate levels of disturbance in body self (groups A and B) the configuration of defence styles is the same (see figure 3.). Most prominent among them are the immature mechanisms, followed by the neurotic ones and least significant are the mature mechanisms. In group C, with minimum disturbances in body self, the mechanisms most frequently invoked are mature ones, which belong to the dominant scales. Alongside these, but at a slightly lower level – as for groups A and B – the neurotic mechanisms are aligned and finally the immature ones (see figure 3.). These results demonstrate that the level of disruption of the body self is clearly associated with the type and intensity of the defence mechanisms mobilized. Women with bulimia nervosa who have insignificant disturbances in the structure of body self, have personalities that are characterised by relatively high adaptive abilities, which are realised mainly by means of mature defences – mechanisms of anticipation and neurotic defences: reaction formation and pseudoaltruism. It is worth noting that in the classification of defence mechanisms according to Meissner (1988), altruism and anticipation are classified as mature mechanisms (Kokoszka and Drozdowski, 1993). This type of defensive style favours the formation of a reasonably mature personality.

Women with low levels of disturbance in the body self (group C) in certain threatening circumstances also demonstrate the tendency to take advantage of reaction formation. Coping with unacceptable impulses and feelings by expressing their oppositional form i.e. replacing one form of affect with another may have the consequence of relieving a woman with bulimia of spontaneity in experiencing and expressing authentic feelings. As a result, increases in disturbances of body self in group C alone most probably brings about a reduction in the intensity of mature defence mechanisms and reinforcement of neurotic defensive styles (in particular pseudoaltruism and reaction formation). A further consequence of this is also associated with an escalation in immature mechanisms (in particular acting out, isolation, displacement, schizoid fantasies and rationalization). This fact, once again points to the direction of change in the organization of personality of women with bulimia nervosa, depending on the extent to which the level of disturbance in body self had increased: from mature forms, through neurotic mechanisms to personality disorders of the borderline type.

Although in groups A and B (profound and moderate degrees of disturbance in body self) immature mechanisms are dominant in the system of personality defences, they differ with regard to the extent to which they are used in the two groups. Thus, women with moderate levels of disturbance in the body self (group B) most frequently, and with greatest intensity, mobilize: acting out, displacement and somatisation. However, women with bulimia with pro-

found disturbances in body self (group A) apart from somatisation, mainly use schizoid fantasies and isolation. The mechanism of somatization thus occupies a fundamental position in the defence system both in groups A and B. They strongly suggest that that alongside increases in disturbances of body self, especially in the attributes contributing to dimension E (attitudes to food and body weight), appears and increases the tendency to the defensive transformation of psychological problems into somatic symptoms. This results in the development of processes typical for psychosomatic disorders. These processes involve a transformation from attempts to resolve emotional conflicts exclusively at the psychological level and coping with anxiety by using neurotic defence mechanisms to the so-called defensive phase, in which the immature mechanism of somatization takes precedence (Krystal, 1997; Kutter, 1998). It may thus be assumed that a significant disturbance in the structure of body self in women with bulimia (groups A and B) not only increasingly weakens their adaptive skills i.e. lowers the level of personality functioning, but also nudges them in the direction of greater levels of psychopathology, connected exclusively with eating disorders.

Women with bulimia nervosa who have a moderate level of disruption of body self (group B) apart from somatization also use the defence mechanism of displacement and acting out. When faced with the systematic frustration of difficulties in coping with important life events, they withdraw their control from the outside world and transfer it to activities associated with eating, choice of food and weight (Mintz, 1987; in: Steiner, 1990). The mechanism of displacement means that its interest is transferred from the self as a whole (an integrated psychophysical being) to the body. As a result, the body or some part of it, comes to represent the person as a whole, or significant part of the whole, in order to cope with feelings of the self being under threat. The mechanism of acting out, which is also mobilized, takes account of emotional expression, desires and impulses in the form of uncontrolled behaviour without taking its consequences into account. Women with bulimia cope with their emotions and conflicts through engaging in impulsive activities, such as episodes of binge eating or purging.

The ineffectiveness of such immature defence strategies used by women who have a moderate level of disruption in body self may give rise to the experience of an increasingly threatened self together with the accompanying anxiety. The dominant anxiety serves to deepen the disruption of body self (e.g. in the form of the 'destructive' self) and to mobilize a different system of defence mechanisms. Apart from somatization, these include: schizoid fantasies and isolation. Bulimic women with profound disturbances to the structure of body self avoid contact with their feelings by means of separating the cognitive and affective aspects of experience and keeping the latter well out of the reach of their own consciousness. As a result, women with profound

disturbances to the body self demonstrate substantial difficulties with remembering intensive feelings. Thus in order to resolve conflicts and gain satisfaction sporadically, they may develop an increasing tendency to fantasize and fulfill their own desires in an autistic way.

According to classical psychoanalytic theory, defence mechanisms are invoked with the aim of maintaining unacceptable thoughts, impulses and desires beyond the realms of consciousness. Within more recent psychodynamic formulations, their role is reduced to that of defending assessments of the self, and in extreme situations, to protecting the integrity of the self (Davidson and MacGregor, 1998). According to Cramer (1998; 2000) defence mechanisms – as intentional acts, occurring outside consciousness, reduce the person's feelings of being threatened, and are disclosed in the form of aversive feelings, mainly severe anxiety. Events that are perceived as being threatening are, in the most part, of an intrapsychic nature, but they may also be external to the psyche. Most probably, among the women with bulimia nervosa in groups A and B (those with profound and moderate disturbances in the body self) defence mechanisms appear to be mobilised in response to threats, which arise out of frustrated needs associated with physicality. The immature defence style of these bulimic women has the task of limiting the escalation of anxiety by preventing the passage to consciousness of those mental elements (e.g. perceptions, thoughts feelings, impulses etc.), which are highly threatening and thus anxiety provoking. The more or less stable constellation of defence mechanisms may undergo positive change as a result of development and psychotherapeutic interventions, but equally it may be characterized by regression towards the excessively rigid use of defences, which have a destructive effect on the self. Since the defences are psychological mechanisms which delineate – and more specifically, their particular constellation delineates – a certain defined way of functioning of the mind, it is most likely that any changes in the structure of the body self will be associated with changes in personality functioning.

It is likely to be the case that the continuum along which the body self is organised can be mapped onto a continuum of defence mechanisms, which, in turn, indicate a spectrum of different types of personality functioning: from those that are regarded as being within the norm i.e. mature, through neurotic ones to personality disorders of the borderline type. This assumption is in keeping with the ideas put forward by Reich and Cierpka (1998), which assume that bulimia nervosa occurs in people with relatively few psychological disturbances as well as in those with more severe personality disturbances.

The present results are helpful in at least partially shedding light on the results of research into the role of defence styles in the functioning of women with eating disorders (e.g. Steiner, 1990; Steiger and Houle, 1991). In accordance with these results, women suffering from anorexia

and bulimia have higher scores on scales measuring immature defence mechanisms. The results in respect of mature defences are however, more controversial and sometimes even contradictory. This ambiguity may be explained in terms of the variety of defences that are mobilised depending on the disruption to the body self. Low levels of disruption, which characterized only a minority of the women in the sample examined, are associated with mature (and neurotic) defences. This observation need not be in contradiction to the presence of high levels of immature defence mechanisms in the remaining participants with moderate and profound disturbances of body self, since the degree to which the body self is disturbed regulates the type and intensity of defence mechanisms that are mobilised in women with bulimia nervosa.

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