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Evaluation of body image among females with Anorexia Readiness Syndrome

Anna Brytek-Matera, Adriana Rybicka-Klimczyk

Summary

Aim. The purpose of the present study was to assess body dissatisfaction, body size perception, restricting and compensative behaviours in relation to body as well as attitudes towards appearance in women with anorexia readiness syndrome (ARS).

Methods. The study included 79 women, among all women, 24 presented ARS. The control group consisted of 55 healthy female students. The Contour Drawing Rating Scale, the Body Dissatisfaction Scale, the Eating Attitudes Test, the Sociocultural Attitudes Appearance Questionnaire and the Physical Activity Scale were used in this study.

Results. Women with ARS had poorer body image and worse eating behaviour compared to healthy controls. Actual-ought discrepancy and oral control moderately determined body dissatisfaction in women with ARS.

Conclusion. Women with ARS are strongly body-oriented and they have a tendency to distort their body image.

eating habits / eating attitudes / appearance orientation / self-discrepancy

INTRODUCTION

The term of anorexia readiness syndrome (ARS) was introduced into psychological terminology in Poland by Ziółkowska [1]. She defined ARS as symptoms which indicate disorders in regard to eating habits and attitudes towards one's own body. Anorexia readiness syndrome manifested itself through so called anorexic behaviour, such as: food preoccupation, a knowledge of calorific values of food, counting calories, periodical increase of physical exercises, excessive attention to one's own appearance, body preoccupation, making a comparison between the ideal woman's beauty and oneself, a tendency to control body shape and weight which may be featured by the emotional tension, a tendency to overestimate one's own body shape and weight, a tendency to compete, a need for perfectionism, lack of resistance to the influence of mass culture as well as emotional lability that is a result of an attitude towards food and body image [1].

Maturing girls with ARS are prone to starving. Such a restrictive behaviour is often caused by improper family relations, which create the excessive need for competition and perfectionism [1]. There is therefore no doubt that the family factor plays a relevant role in the occurrence of eating habits. The contacts with parents, parental attitudes, lifestyle and the upbringing preferred in the family as well as relationships prevailing in it (e.g. involving eating habits, attitudes towards eating, physical attractiveness created by the family) constitute deciding factors for the appearance of disordered eating attitude and one's own body image [1].

Anna Brytek-Matera[1], Adriana Rybicka-Klimczyk[2]: [1]Warsaw School of Social Science and Humanities, Campus in Katowice, Poland. [2]Early Intervention Center, Polish Association for The Mentally Handicapped, Mikołów, Poland. Correspondence address: Anna Brytek-Matera, Warsaw School of Social Science and Humanities, Campus in Katowice 9 Kossutha Str., 40-844 Katowice, Poland.
E-mail: abrytek-matera@swps.edu.pl

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According to Ziółkowska [1], among the main reasons for the occurrence of ARS are: (a) improper family relations, as far as the distance between parents and children is concerned, (b) maladaptive body image, (c) shortage of strategies for successful handling with stress, (d) adolescence, (e) domination of certain cultural patterns, and (f) somebody's difficult situation at the given moment. One of the most important factors of ARS is a susceptibility of young people to mass culture, since it forms and enhances their unrealistic body image and sense of attractiveness [1].

At present, the lifetime prevalence of eating disorders is approximately 5%[2]. Disturbed eating habits, extreme weight-control behaviour (like e.g strict dietary restriction), excessive eating, body size overestimation may occur in anorexia nervosa, bulimia nervosa or atypical eating disorders (terminology used in Europe) / eating disorder not otherwise specified (terminology used in the United States) [2, 3]. Ziółkowska [1] points out that anorexia readiness syndrome is not the same as atypical eating disorders. "Non-specified eating disorders include a lot of forms concerning abnormalities in the range of realisation of food need, without differentiating them (those abnormalities) due to the symptoms and aetiology. Anorexia readiness syndrome, in turn, emphasises the tendency for adolescent girls to undergo a starvation diet whose initiation usually results in abnormal relationships in a family, which very often causes excessive need for competition and perfectionism". Moreover, the author argues that from the standpoint of psychology, even though the anorexia readiness syndrome does not take a full-blown form of abnormal attitude towards eating and one's own body image, it does not belong to specified or non-specified eating disorders. Chytra-Gedek and Kobierecka [4] think that in the absence of a full-blown diagnosis of anorexia nervosa we can talk about anorexia readiness syndrome.

Ziółkowska [1] makes a distinction between anorexia readiness syndrome and anorexia nervosa, taking into consideration three basic domains of human functioning, that is, psyche (psychological functioning), soma (physiological functioning) and polis (social functioning) (Tab. 1 – *next page*).

Anorexia readiness syndrome was also described as control over food in terms of its quality and quantity, appearance preoccupation, focus on body weight, desire do lose weight, social belief that women have to be slim, fear of gaining weight and joy resulting from losing weight [4]. Chytra-Gedek and Kobierecka [4] have conducted a research on the group of 92 young women, at the age of 14-26 (average age was 18.8). As it was observed, anorexia readiness syndrome was mainly associated with the excessive importance attributed to slimness (as it is the main criterion of women's assessment). The focus on body shape and weight played a less important role here. 65% of respondents felt that men find slim women more attractive, 63% of them stated that in general, men prefer slim women. 6.5% of participants had a high level of anorexia readiness, whereas 63% of them were not satisfied with their current appearance. Additionally, it was found that the younger the girls are, the greater is their desire not to gain weight (which is expressed by inducing vomiting or using diuretics).

Fig. 1 – *page 14*) presents our model of the structure of body dissatisfaction in women with anorexia readiness syndrome. We comprehend anorexia readiness syndrome as eating disturbance characterised by abnormality in realising food needs and attitude to one's own body (high levels of thin-ideal internalisation, body dissatisfaction, weight reduction and excessive exercises).

OBJECTIVES OF THE RESEARCH

The first aim of present study was to assess body dissatisfaction, body size perception, restricting and compensative behaviours in relation to body as well as attitudes towards appearance in women with anorexia readiness syndrome compared to participants not fulfilling the criteria of ARS in regard to body image and eating pathology. The second purpose was an attempt to examine the relationship between body dissatisfaction and other components of body image and body attitudes in women with anorexia readiness syndrome. An interaction effect is postulated between body dissatisfaction and attitude toward one's body on the one hand, and self-discrepancy on the other.

Table 1. Differentiating characteristics between anorexia readiness syndrome and anorexia nervosa [1].

	Anorexia readiness syndrome	Anorexia nervosa
Psyche		
Self–esteem	– low, but may concern a specific sphere – usually unrealistic – sense of guilt because of failures and defeats	– low, usually in all spheres of human functioning – unrealistic, depends on self–control – fear of failure – high aspirations (risk of failure often disorganises functioning)
Self–attractiveness	– inadequate assessment of one's own attractiveness – overestimation of role of physical attractiveness	– loss of weight increases own physical attractiveness – inability to achieve „ideal" appearance
Perfectionism and persistence	– being perfect does not include all spheres of life – persistence is present solely in some forms of activity – large need for control is basis for persistence	– obsessive need for perfection in all spheres of life – perfectionism could have compulsive or obsessive character – persistent pursuit of achieving goals
Attitude towards eating	– abnormal (e.g. paying special attention to eating, dieting, chaos in meeting need of food) – change in eating habits may result from external (e.g. family dieting) or internal factors (e.g. somatic disease)	– disturbed – eating produces extreme emotions – eating process shows loss of control
Mood and emotions	– mood of dejection and dissatisfaction with oneself – temporary mood improvement (in connection with intensive self–monitoring plans)	– emotional lability – loss of self–control can result in mood lability (euphory vs depression)
Soma		
Body Mass and its dimensions	– normal range or overweight – tendency to over–concentration on body size and shape – comparison of public figures (models, actresses)	– very low body mass which shows severe underweight or underweight – being inclined to overestimate body size and shape – great precision for assessment of other objects' dimensions
Polis		
Family relationships	– abnormal (relationships are too close or too far)	– disordered (e.g. overprotection, rigidity, not tolerating individuality and autonomy for all members) – progressive illness of a child could affect the apparent improvement in abnormal family relationships (especially between spouses)
Susceptibility to influence of advertisements	– selective susceptibility to the influence of advertisements (especially visual) – comparing with the current ideal of femininity promoted in the media	– significant susceptibility to the impact of visual advertisements (in particular involving the creation of own appearance) – comparison with ideal female body shape promoted in the mass media as well as the compulsive pursuit of achievement of this ideal

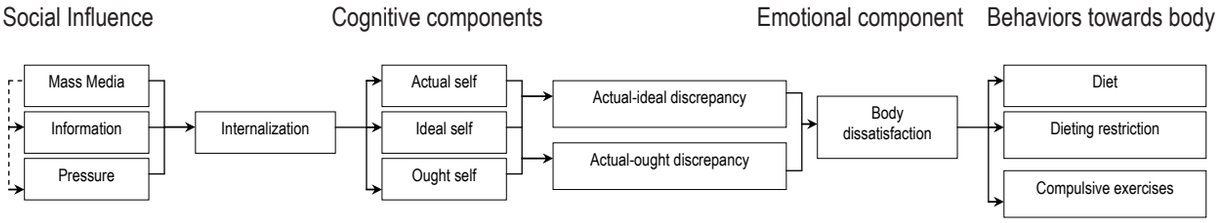

Figure 1. The structure of body image in women with anorexia readiness syndrome and connections between different components

Participants

The study included 79 women aged from 16 to 25 years. Our research, in the first stage, had a random selection. Study group included secondary school students and students (from Silesian region). Second stage had an advisable selection. Among all women, 24 presented anorexia readiness syndrome according to criteria proposed by Ziółkowska [1] that is: forms of body weight control and reduction, eating attitude and perception of one's own attractiveness, and ours, that is: eating disturbance, high levels of thin-ideal internalisation, highest levels of body dissatisfaction, weight reduction and excessive exercises. The anorexia readiness syndrome was assessed on the basis of the answers to our questions concerning the individual negative eating habit and negative attitudes towards body image. We used also a clinical interview to ascertain that there were no women with a diagnosis of anorexia nervosa. The control group consisted of 55 healthy women who agreed to take part in the research. The criteria for inclusion of a healthy participant in the control group were the female sex, the absence of an eating disorder and the age (from late adolescence to young adulthood).

The mean age was 20.54 years (SD±2.35) in the clinical group and 20.40 years (SD±2.83) in the control group. The mean body mass index (BMI) in women with anorexia readiness syndrome was 18.28 kg/m² (SD±1.95), what according to the norms established by the World Health Organization [5] indicates "underweight" (17.00 - 18.49 kg/m²) While, in healthy women BMI was 20.19 kg/m² (SD±2.11), which according to the norms established by the WHO [5] indicates "normal range" (18.50–24.99 kg/m²).

RESEARCH METHODS

1. The Contour Drawing Rating Scale (CDRS) [6] consists of nine male and nine female contour drawings of graduated sizes (Fig. 1, the thinness; Fig. 9, the largest). In this study, instruction for choice of body size were: "to circle the body type that presents your current figure" (actual self), "to circle the body type that presents your ideal figure" (ideal self) and "to circle the body type that presents the figure woman should have" (ought self). Current versus ideal body size perception (actual–ideal discrepancy) and current versus ought to body size perception (actual–ought discrepancy) were also calculated in our study. The CDRS has high test-retest accuracy (r=0.79) [6].

2. The Body Dissatisfaction Scale (BD) is a 9-item subscale of the Eating Disorder Inventory [7]. The EDI enables the clinicians to characterise the cognitive and behavioural characteristics associated with anorexia nervosa and bulimia nervosa. The BD measures the level of dissatisfaction from those body parts, which are perceived as too large or associated with "fatness" in general, like thighs, hips, buttocks (e.g. "I think that my thighs are too large"). The BD has shown high internal consistency (Cronbach's alpha=0.90) [7].

3. The Eating Attitudes Test (EAT-26) [8] is a self-report measure used to identify abnormal eating habits and concerns about weight derived from a 40-item inventory [9], which was originally designed to screen for symptoms of anorexia nervosa. The EAT-26 consists of 26 items representing three factors: (1) dieting - relating to avoidance of fattening foods and the preoccupation with being thinner (e.g. "I particularly avoid foods with high carbohydrate content"), (2) bulimia and food preoccupation - connected with thoughts about food and indications of bulimia (e.g. "I feel that food controls my life"), and (3) oral control-relating to self-control of eat-

ing and perceived pressure from others to gain weight (e.g. "I feel that others pressure me to eat"). The score greater than or equal to 20 points indicates a high level of concern about dieting, body weight and eating problems. The score in question, may suggest eating disorder pathology, providing that it highly correlates with patient's BMI and behavioral symptoms, like vomiting, laxatives or binging. The EAT-26 has got high coefficient of accuracy, which was observed in the clinical group of patients with anorexia nervosa (coefficient α=0.79) and in the mixed group of patients, that included both anorexics and patients from the control group (coefficient α=0.94) [8]

4. The Sociocultural Attitudes Appearance Questionnaire (SATAQ-3) [10] is a self-reported method designed to assess a woman's awareness of the appearance standards created by the mass media and pressure to internalize social standards of attractiveness and information. It measures the sociocultural impact of multiple dimensions of media on body image and eating disturbances. The SATAQ-3 consists of four subscales: information, pressures, internalization-general, and internalization-athlete. Information subscale – indicate that various media are considered as an important source for obtaining information about attractiveness (e.g., "Pictures in magazines are an important source of information about fashion and "being attractive"). Pressures subscale – assesses perceived pressure from the various media to strive for cultural ideals of beauty and attempts to change one's appearance (e.g., "I've felt pressure from TV or magazines to diet"). Internalization-general subscale - indicate internalization of sociocultural unrealistic ideals for female beauty and the pursuit of these ideals related to television, magazines, and movies (e.g., "I compare my body to the bodies of people who are on TV"). Internalization- athlete subscale – assess approbation of the relatively new athletic and "toned" body ideal (e.g., "I wish I looked as athletic as sports stars"). The authors [10] reported high internal consistency (Cronbach's alpha) in two studies: information (α=0.96, α=0.94), pressures (α=0.92, α=0.94), internalization-General (α=0.96, α=0.92), and internalization-athlete (α=0.95, α=0.89).

5. The Physical Activity Scale (PAS) [11] was designed to assess behavioural attitudes towards body, especially the tendency to do compulsive exercises, that is the frequency and sort of exercises and the compulsion to do a definite amount of the specific exercises in fear of gaining weight (coefficient α=0.86). It is a self-reported measure that consists of 9-items (e.g. "When I don't exercise I feel guilty") scored on a six point Likert scale (from "always" to "never") [11].

In order to apply the CDRS, the BD, the EAT-26 and the SATAQ-3 in our research all methods underwent a translation/back-translation standard procedure.

RESULTS

We used non parametric statistical procedures because of small samples and data belonging to mixed levels of measurement. The Mann-Whitney U-test (comparative analysis of the results) and Spearman's rank correlation coefficient (correlation analysis between body dissatisfaction and self-discrepancy, eating behaviours as well as attitudes towards one's own body), have been used to make a statistical analysis of the given research results. The adopted significance level was $p<0.05$.

Tab. 2 presents the contrastive analysis of the results achieved in a group with anorexia readiness syndrome and control group. It contains data concerning the level of body dissatisfaction, the actual, ideal and ought self, both restrictive and compensative behaviours as well as attitudes towards one's own body. Table 2 – *next page*.

Our study showed that body dissatisfaction among girls with ARS was moderately strongly correlated with actual-ought self discrepancy ($r=0.639$. $p<0.01$), actual-ideal self discrepancy ($r=0.621$. $p<0.01$), actual self ($r=0.405$. $p<0.05$) and oral control - control over the quantity and type of food intake ($r=-0.481$. $p<0.05$).

In order to determine which were predictors for body dissatisfaction in women with ARS, we conducted multiple regression analyses – a linear regression (a stepwise regression). As it was observed (Tab. 3), actual-ought discrepancy (β=0.476, $p<0.01$) and oral control (β=-0.370, $p<0.05$) moderately determined body dissatisfaction in women with anorexia readiness syndrome. Together these variables predicted 58% of the variance ($F(3, 20)=9.38$, $p<0.001$, $R=0.765$, $R^2=0.585$). Table 3 – *next page*.

Table 2. Comparison between components of body image, eating behaviours and attitudes towards one's own body in clinical and control group

Variable	Women with anorexia readiness syndrome		Healthy women		Mann-Whitney U	
	M	SD	M	SD	z	Asymp. sing. (2-tailed)
Actual self	5.75	1.80	4.56	1.41	-2.712	**0.007**
Ideal self	3.88	1.03	3.49	0.92	-1.746	0.081
Ought self	4.13	1.03	3.75	0.92	-1.749	0.080
Actual-ideal discrepancy	1.88	1.59	1.07	1.16	-2.168	**0.030**
Actual-ought discrepancy	1.63	1.76	0.82	1.17	-2.250	**0.024**
Body Dissatisfaction	12.67	8.27	5.11	5.39	-3.760	**0.001**
Dieting	14.92	6.11	4.76	3.86	-5.921	**0.001**
Oral control	7.58	3.22	4.84	4.14	-2.891	**0.004**
Bulimia	2.75	2.64	1.64	1.17	-1.629	0.103
Information	30.83	7.69	29.02	4.18	-0.620	0.535
Pressure	28.00	8.33	23.96	6.64	-3.780	**0.001**
Internalization-general	22.58	5.33	16.93	5.58	-2.205	**0.027**
Internalization-athlete	30.83	7.69	29.02	4.18	-1.702	0.092
Compulsive exercises	1.5	2.43	1.24	2.21	-0.846	0.639

Note: Significance of differences between researches groups are marked in bold

Table 3. Predictive factors for body dissatisfaction in women with anorexia readiness syndrome

Variable	Non-Standardised Coefficient		Standardised Coefficient	t	*p* value
	B	SE	β		
Step 1					
Actual-ought discrepancy	2.848	0.794	0.608	3.589	0.002
Step 2					
Actual-ought discrepancy	2.230	0.783	0.476	2.849	0.010
Oral control	-0.947	0.428	-0.370	-2.213	0.038

DISCUSSION

The results of the present study showed that participants with anorexia readiness syndrome are strongly body-oriented. In comparison to women and girls placed in a control group, they pay more attention to the way they look (actual-ought discrepancy) and they are eager for having the ideal body size (actual-ideal discrepancy). The discrepancies between the actual-ideal and actual-ought self are believed to be the source of cognitive body image disorder. The discrepancies in question, may lead to a feeling of physical discomfort or body dissatisfaction. Our research shows that girls with ARS are less satisfied with their body image than girls from

the control group. Moreover, girls with anorexia readiness syndrome are more determined to avoid fattening foods and to be preoccupied with being thinner, to control their eating, to have compensative behaviours (vomiting or laxative abuse) as well as to perceive pressure from others to gain weight. As it was observed, such behavioural symptoms were much stronger than in case of girls from the control group.

The results of the this study presented that in a group of girls with anorexia readiness syndrome a predisposing factor to the emergence of symptoms specific to the diagnosis of anorexia nervosa is a psychological high level of dissatisfaction with the appearance of their bodies. Numerous studies on the pathogenesis of eating disorders [12, 13, 14] confirm that dissatisfaction with the body in interaction with other variables may give an appropriate picture of eating disorder symptomatology.

In our opinion, body dissatisfaction is the main risk factor for the occurrence of eating disorders among the girls with ARS. It is associated with both restrictive dieting (typical for anorexia nervosa) and cognitive disorders that result from the internalization of information created by the mass media (mainly, internalisation of the thin ideal). Girls with ARS feel constant pressure, created by the mass media, to be slim according to the standards of mass culture. That is why they excessively identify themselves with new cultural patterns. As a result, they create a scheme for social comparison of body image. When comparing their actual body image with the longed-for ideal or current standards of woman's figure, girls with ARS experience body dissatisfaction (providing that such comparison is not favourable). In case of girls with ARS, body dissatisfaction is accompanied by wishful or obligation discrepancy.

In the literature, dissatisfaction with the body is understood as a discrepancy between the ideal and the perceived current figure [15], discomfort in relation to one's body [12], dissatisfaction with the shape and size of certain body parts that are associated with the accumulation of body fat [13]. In our opinion body dissatisfaction among girls with ARS is associated with the internalization of socio-cultural ideals of slimness, which determine how the female body should look like in accordance with the applicable standards of attractiveness. As a result, girls with ARS not only compare self with the popular culture promoted by the ideal female body, but also they internalize the ideal thin body shape under pressure from media messages (ads, billboards, beauty guides, women's magazines, TV programmes). In our study women with ARS as compared to the control group strongly internalize standards of attractiveness of the female body disseminated by the media and feel a stronger pressure to cope with the social ideals. The level of internalization of the social standards of attractiveness was much higher for the clinical group than for the control group. Girls with ARS feel more pressure to gain the ideal body size that is being promoted by the mass media.

As demonstrated by statistical analysis of the main predictor of body dissatisfaction among women with anorexia readiness syndrome is actual-ought discrepancy and oral control. According to Higgins [16] actual-ought discrepancy, which is striving to reduce the difference between how a person perceives themselves now (the actual self) and what should be in accordance with social expectations and their own ideal of self-regulation significantly affects the person and creates a kind of negative psychological situation tied to emotional and motivational consequences. In contrast to the actual-ideal discrepancy – reducing dissonance between the current and long-awaited appearance, the actual-ought discrepancy has a more devastating impact on behaviour, because it involves a situation of chronic emotional discomfort, which includes tension, anxiety, and a sense of dissatisfaction. Girls with ARS with a broad awareness of the existing discrepancy between perceived current figure and the ideal of socially found approval are in a state of chronic dissatisfaction with their appearance. Feeling of tension, dissatisfaction and discomfort, which are connected with the actual-ought discrepancy, women reduce by destructive acts associated with rapid weight loss.

The study by Chytra-Gedek and Kobierecka [4] shows that the younger the person, the more focused they are on the shape and weight of their bodies. The results confirmed the significant impact of culture and society on eating disorders and decrease in age of people who strive for a low weight and a slim body. Some of the sur-

veyed people revealed a strong belief that thinness is the main criterion assessment of women. Being slim is identified by these girls and young women with achieving success, popularity, attractiveness and interest of the opposite sex (significantly, approximately two thirds of people who took part in the study believe that men prefer thin women and that they are more successful). Such beliefs may be the result of interactions of modern culture in which the standard is slim figure. Mass media may also have a strong impact, flooding girls and young women with programs, articles or ads on low-calorie food products, "fit" or "light" food products (limited calories and less fat) and medication to assist them in dropping pounds, as well as proposals for physical exercise to help achieve the ideal body [4]. Girls and young women, who depend on a slim figure and low weight body, often seek to reduce their weight through physical activity, natural diet, restricting food, and even the consumption of medication to reduce appetite.

Research on the behaviours associated with eating permits to come to the conclusion that anorexic behaviour constituting the anorexia readiness syndrome isn't a rare phenomenon. The majority of young women in Western countries focus their attention too much on their figure and are convinced they have problems with maintaining proper weight - thus applying methods to reduce weight, even if it is normal. The report published in 2004 on the Polish population health data show that the Polish women, compared with men, are more focused on weight and often tries to make sure their weight is "correct". Women are under pressure to maintain a proper body weight. Young girls in particular, attach great importance to their own body [4]. The 2006 survey on 14- to 18-year-old polish students showed that three quarters of girls were convinced they weighed too much and declared willingness to go on a diet. One girl in five admitted to the use of laxatives or diuretics to reduce body weight, and one in ten to the use of slimming and appetite reducing medication. Only nearly one third of those interviewed did not express concern about their appearance and claimed they ingested three basic meals.

Despite the present study described a subthreshold form of anorexia nervosa – the so called anorexia readiness syndrome, it has some limitations. All participants were secondary school students and students (from Silesian region), so it would be necessary to carry out a new research with more diverse samples.

It seems that the comparative study of women with anorexia readiness syndrome and those with a current diagnosis of anorexia nervosa would be extremely valuable. They could make it possible to point out the differences (or similarities) between these disorders. Moreover, future research could answer the question the extent to which anorexia readiness syndrome determines anorexia nervosa. Even if our results cannot be generalised, due to the small size of our samples, our discussion open tracks for future action research in the realm of clinical psychology.

CONCLUSION

The results of the present research indicate that women with anorexia readiness syndrome have poorer body image and worse eating behaviour compared to healthy controls. Women with ARS are strongly body-oriented and they have a tendency to distort their body image.

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