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Body image among young females with anorexia nervosa and the structure of body image among their mothers

Bernadetta Izydorczyk

Summary

Aim. A comparative study of body image among young females with anorexia nervosa and their mothers.
Method. Contour Drawing Rating Scale – CDRS by J.K Thompson, J. Gray.
Results. The results of this research revealed the statistically significant correlation between body image evaluation among mothers and the body perception among their daughters with anorexia nervosa. The correlation refers to the "ideal self" ("what I want to look like") as well as to the "ought self" ("what I should look like"). Both mothers and daughters aspire to the ideal body image. The women's desired body shape is slimmer than their current figure which conforms to the age-appropriate norms. When evaluating their bodies, both groups of females take into account the social norms concerning appearance.
Conclusions. Culturally and socially influenced perception of body can significantly affect the development of identity in adolescent females and young women, leading to disharmony.

body image / anorexia nervosa

INTRODUCTION

In the light of the recent psychological and psychiatric literature, body image disturbances are regarded as significant factors behind development of eating disorders, including anorexia nervosa [1, 2, 3, 4, 5]. Anorexia nervosa is a disease marked by self-imposed and at the same time excessive limitation of food intake, aimed at gaining a slim(thin) body, which frequently leads to extreme weight loss, and even body emaciation [6]. The sufferer perceives his or her emaciated body as ideal and with the so called "normal proportions". Schier mentions the phenomenon of the so called "abandoned body", which she defines as the chronic dissatisfaction with one's body image [6]. In some cases body size "exaggeration" and dissatisfaction refer to specific body parts such as stomach, buttocks, thighs or face [3]. Many researchers who investigate this theme area [1, 2, 3, 4, 5, 6, 7, 8, 9, 10] maintain that perceptual body image distortions as well as distortions in the cognitive interpretation of body stimuli are significant factors which determine the development of an eating disorder.

Body image, as viewed in subject literature, is a significant component of the so called body self. By citing Freud's observation that every mental phenomenon has its organic foundation, Schier points to the correlation between body and psyche, described in psychological literature [7]. According to psychoanalytical conceptions, the ego, comprising the personality structure, is derived from body sensations [7]. The psychological literature highlights a significant relation-

Bernadetta Izydorczyk: Department of Clinical and Forensic Psychology, University of Silesia in Katowice, Head of Department: Professor Jan M. Stanik. Correspondence address: Bernadetta Izydorczyk Department of Clinical and Forensic Psychology, University of Silesia in Katowice, Poland. E-mail: b.izydorczyk@interia.pl

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ship between the person's body experience and development of his or her personality and identity [7, 8, 9]. Krueger maintains that "the body and its evolving mental representation form the foundation of a sense of self" [quoted after: 7]. The concept of the "body self" is described as a combination of the psychic experiences of body sensations, body functioning, and body image [10, 11]. Body image is one of the most important components of the body self. It is a complex and multidimensional construct. A variety of definitions were presented by Thompson in professional literature [7, 12]. According to the most common definition, the term represents the sensual image of sizes, shapes, and forms of the body as well as feelings regarding the mentioned features of the whole body or one of its specified parts [1. According to Grogan's definition, body image refers to "a person's perceptions, thoughts, and feelings about his or her body" [quoted after: 7].

Different forms of body image disturbance in people suffering from anorexia nervosa refer mainly to their distorted body image perception. As a result, the sufferer is unable to make accurate body size estimation relative to the actual size, or to appropriately experience the feelings and adopt emotional attitudes towards his or her body, as a whole, or towards one of its specified parts.

Thompson [2] used the Self-Discrepancy Theory formulated by Higgins [13] to explain and describe the body image disturbances [13]. He contends that the negative consequences of the body image development result from a comparison between the ideal body image and the image an individual has of his or her own body. The greater the discrepancy between the ideal image and the actual self-rating, the higher the level of body dissatisfaction, and the greater the risk of eating disorders. The ideal self-image (what I would like to look like) corresponds to a very slim body, whereas the so called "ought" self (what I should be like) refers to what my body should look like [12, 13]. A Contour Drawing Rating Scale, which was constructed on the basis of Higgins's Self-Discrepancy Theory, is an instrument aimed at measuring the self discrepancy in reference to body image. It is used for measuring the differences between the idealised and actually perceived body shape and size, and it is called the Thompson's Figure Rating Scale.

Recent observations of adolescents' behaviour reveal considerable changes in their attitude towards the body, when compared to previous years. An increased interest in physical appearance, still strengthened by the desire to be rated as attractive by society, has been observed among young people. "What I am like" frequently depends on "what I look like" to others. Body image is a significant determinant of our own attractiveness as well as our attractiveness to others. The perception of body image and of one's own physical appearance can also be influenced by parents' attitudes towards these significant body image components [14]. It is often parents who inform their children that they are too fat or too thin. It refers mainly to girls, who build their own female pattern of psychosexual identity on the basis of their mothers' female model and body image [14].

Summing up, it can be stated that the empirical research described in the professional literature emphasises the significance and shaping influence of parents (the emotional relations they experience, their perception and attitudes towards their own body image) on the body image among their adolescent children, especially daughters suffering from anorexia or bulimia. Taking into account the increasing incidence rate of anorexia and bulimia nervosa among youths, including the Polish population, a question arises: to what extent can the cultural and social pattern of thinness, which is currently being established as an ideal of a beautiful female body for adolescent girls, correlate with the ideal image their mothers have of their bodies. To what extent does a mother shape her daughter's body perception and experience?

Research objectives

This research was aimed at a comparative analysis of body image among adolescent females suffering from anorexia nervosa, and their mothers. The following research question was asked: is there any correlation between the body image (the actual, ideal, and ought self) among the examined adolescent girls suffering from anorexia nervosa and the way their mothers perceive

their bodies; and if so, how strong is the correlation?

Characteristics of variables and their indicators

The main variable in the study was body image, which was defined, according to Thompson's conception, as "sensual image of sizes, shapes, and forms of the body as well as feelings regarding the mentioned features of the whole body or one of its specified parts" [1, 12, 13]. The body image definitions referred to the thoughts related to body self-evaluation, which were included in the cognitive schemes, characterised by a degree of body image self- discrepancy between the actual and ideal self [12, 13]. The variable indicators were the evaluation ratings reported by the subjects in both examined groups (i.e. daughters and their mothers), which referred to the:

actual self ("what I am like" – mental evaluation of the body features and characteristics that the individual believes she displays,

ideal self ("what I would like to be like" – the person's thoughts and aspirations regarding an ideal body image),

ought self ("what I should be like" – mental evaluation of the body features and characteristics which the person believes she should display).

RESEARCH METHODS AND MATERIALS

The Silhouette Test (the Contour Drawing Rating Scale - CDRS) devised by Thompson and Gray [1, 12] was used to measure body image among the examined adolescent females and their mothers.

Thompson's Silhouette Test consists of a set of nine male and nine female silhouettes ranging from very thin to very fat (with 1 being the thinnest body type and 9 being the largest, most obese type). The subjects' task is to select one figure which most closely matched their current body shape, one image which they considered ideal, and one silhouette they believed a woman should have. The inventory consists of three questions. Each participant is asked to assign a score value (the silhouettes were ranked on a scale from 1 to 9) to: 1) the figure that resembled her current body shape, 2) the silhouette the individual considered ideal and most desired; and 3) the figure that the subject believed a woman should have.

The figure ratings obtained in the test were used to calculate the current-ideal discrepancy (the individual's perceived current body shape and appearance versus the so called ideal self – "what I would like to look like"), and thus to examine the respondents' body figure preferences and desires. There is a multitude of American research employing Thompson's Figure Test [12], however, to date, it has not been adapted and standardised in Poland. The scale is a projective method aimed at conducting clinical evaluation of the individual's body image. In her research performed in the population of Polish women, the author of this study repeatedly applied the aforementioned test in order to measure the subjects' body image. The outcome of this research is published in the professional literature [17, 18, 19, 20, 21].

Subjects

Clinical population No. I consisted of 30 girls suffering from anorexia nervosa. Whereas clinical population No. II comprised of 30 women who were the mothers of clinical population No. I. The selection criteria for the clinical population I included: the BMI index value below the population norm, i.e. ranging from 17 to 15, and symptoms of medically diagnosed anorexia nervosa (according to the ICD criteria of psychiatric classification). The subjects for the population II were selected according to one criterion which was: being a mother of the daughter from group I with medically diagnosed anorexia nervosa. A mean BMI in the group of daughters was 16.8, and in the group of mothers it reached the value of 23.5. A mean age in the sample of mothers ranged from 35 to 40, whereas in the group of daughters it ranged from 15 to 18. The clinical population I (daughters suffering from anorexia nervosa) comprised of individuals brought up in complete families, living in the city environment. The subjects were secondary (comprehensive) school students, and their examined mothers maintained stable and long-term relation-

ships with the girls' fathers. The fathers played an active role in bringing up their children and lived together with the entire family (their wives and children). The females suffering from anorexia, who comprised the sample group, were predominantly single children (16 girls), or had one sibling – a brother or a sister (10 subjects), or more siblings (4 participants).

The research subjects were drawn from the database of a few Polish centres for treatment of neurosis and eating disorders.

RESEARCH RESULTS

Systematic analysis of the data obtained as a result of Thompson's Figure Test, aimed at examining the body image among females suffering from anorexia nervosa and their mothers, is displayed in Tab. 1, 2 and 3.

Examining the data gathered in the group of the females suffering from anorexia nervosa, which referred to the participants' self- evaluation of their actual body image (the actual self – "what I am like, what my current body shape is"), it was found that the average score prevailing in the group reached 5.01. It suggested that in Thompson's Figure Test the females tended to select the figure corresponding to the age-appropriate weight norm. The examined females' mean value (5.01) and median (5.00) prove that in Thompson's Figure Test, when choosing the silhouette most resembling their own body shape, they opted for the so called normal figure, neither emaciated nor obese. It means that asked about how they perceive their current body shape, the subjects pointed to the so called middle silhouette (normal, or average body figure), although their MBI was below the norm for this age group, and was characteristic for anorexia (body emaciation).

Table 1. The main characteristics of research data collected in the clinical population I – the girls suffering from anorexia nervosa (n=30). Descriptive statistics for the mean values, which was aimed at determining the frequency of the girls' choices of the particular 9 images in Thompson's figure test.

Aspect of Body Image	Number of samples	Mean	Median	Minimum	Maximum	Variance	Standard Deviations
Actual self	30.00	5.01	5,00	1.00	9.00	6.31	2.50
Ideal self	30.00	1.90	2.00	1.00	4.00	0.63	0.82
Ought self	30.00	2.257	2.00	1.00	4.00	1.08	1.04

Table 2. The main characteristics of the data gathered as a result of Thompson's Figure Test, conducted in the clinical group II – mothers, whose daughters suffer from anorexia nervosa (n=3). Descriptive statistics for the mean values, which was aimed at determining the frequency of the mothers' choices of the particular 9 images in Thompson's figure test.

Aspect of Body Image	N	Mean	Median	Minimum	Maximum	Variance	Standard Deviations
Actual self	30.00	5.50	5.00	3.00	9.00	2.90	1.70
Ideal self	30.00	3.62	4.00	1.00	7.00	2.25	1.50
Ought self	30.00	3.54	3.00	1.00	7.00	2.10	1.45

Table 3. Research data concerning a diagnosis of the strength of correlations between body image (the actual, ideal, and ought self) among examined daughters {n=30} and the body image evaluation among their mothers {n=30}. Specification of Pearson's correlation coefficient values - r

Aspect of Body image	Number of samples	R	T(N-2)	Level p
Actual self	30	0.152	0.751	0.460
Ideal self	30	0.601	3.688	0.001
Ought self	30	0.504	2.858	0.009

Analysis of mean values and the figures which the examined mothers most frequently selected in Thompson's Figure Test, as the reflection of their current body shape, demonstrated that their current body shape and weight corresponded with the individuals' perception of

their own body image. The actual self score the mothers obtained on the 9-figure scale reached 5.00, which revealed their preference for the so called average silhouette (image number 5 on Thompson's scale). The similar score was reported in the group of their daughters suffering from anorexia. The mean BMI value of 23.5 in the group of mothers conforms to the age-appropriate norm. It is likely to denote that the examined mothers' body image evaluation and perception corresponds to their actual body size and appearance.

Analysis of the mean values for the ideal self ("what I would like to look like") discovered that the image most frequently selected by the examined mothers in Thompson's Figure test was the silhouette to which a mean value of 3.70 was assigned (median=4.00). It denotes that the women's desired (ideal) body figure is thinner than their current body shape which conforms to the age-appropriate norms. This is proven by their mean BMI value.

The research data displayed in Tab. 3 *see page 64*, concerning a diagnosis of the strength of correlations between the body image ratings reported by the examined mothers and the evaluation made by their daughters suffering from anorexia nervosa, point to a significant correlation between body image assessment among mothers and body image rating among their daughters. It refers to the ideal as well as to the ought self image. The correlation coefficient value for the ideal self reached 0.61, and 0.5 for the ought self. No significant correlation was detected between the examined groups in terms of the actual self ("what I look like, how I perceive my body").

DISCUSSION

Taking into consideration the BMI value in the clinical population of daughters, it can be concluded that the examined females who regard their body size as "normal", believing that it does not differ from the norm, and they do not perceive their current emaciated silhouette. This is a typical example of perceptual body image disturbance, which is characteristic of anorexia nervosa. Accordingly, the subjects' evaluation of their actual self is inadequate. The scores obtained by the females examined who were suffering from anorexia nervosa regarding the ideal (desired) body image indicate that they wish to have a body which would be much slimmer than their current shape. This is supported by the mean value of 1.92 and the median value of 2.0, which suggests that the image most frequently chosen by the subjects in Thompson's Figure Test was the one representing an emaciated body shape (cf. table 1). The values correspond with the mean value and the median (reaching the value of 2.257 and 2.00 respectively) obtained in the clinical population I, in respect to the subjects' evaluation of the so called ought self ("what I should be like"). And again a similar tendency was detected: an emaciated body shape was the image most frequently selected by the females in Thompson's Figure Test (cf. Tab. 1). The data gathered in the research reflect the significance the examined attach to the impact of society on their body image evaluation. The subjects are motivated by the idea of conforming to the social norm concerning physical appearance (what they should look like), and they strive for an ideal slim body, disregarding their current weight and body image.

Analysis of the data presented in Tab. 2 reveals that the examined mothers wish to have slimmer bodies and a weight which would be lower than the age-appropriate norms. The prevailing desire to look slimmer and to create a body image which is different from the norm and the "actual self" is also reflected in the women's ratings concerning the so called "ought self". The "ought self" score in this group is the lowest, compared to the "actual" and "ideal" self ratings. Although the examined women appropriately evaluate their own body (the mean value for the actual self corresponds to the norm- and age-appropriate BMI value), the subjects would like to be slimmer, and they also believe they "should" be slimmer. They consider it to be a requirement of society (an obligation). The women's ratings reflect the significant influence of social obligations on the process of creating body image. In other words, it is not important what I am like, but what I should look like.

The correlation coefficients displayed in Tab. 3 prove that the stronger the ideal self-beliefs and desire for an ideal body shape among mothers, the stronger the tendency among their daughters. The similar correlation was discovered with

respect to the "ought self" and the strengthening tendency, exhibited by the women in both sample groups, to reveal submissiveness and to conform to social norms and obligations (the cult of thinness). There is a significant relationship between the mothers' and their daughters' self-assessment of body image: the stronger the tendency among the mothers to conform to the social norms concerning appearance ("what I should be and look like"), the stronger the similar tendency among their daughters.

The research results presented in this study represent a continuation of another research programme conducted in 2008 and 2009 in a sample population of young Polish women suffering from anorexia nervosa [18, 19, 20, 21, 22, 23]. The research was conducted as part of a graduate seminar on eating disorders, which was supervised by the author of this paper. The overall analysis of the research results reveals the tendency among young Polish women which is dominated by the desire to "be slim" and to aspire to the ideal body image. This is confirmed by the divergent scores concerning the "actual" and "ideal self," which was obtained in earlier research [17, 18, 19, 20, 21, 22, 23].

Catamnestic research described in the literature demonstrates that young women suffering from anorexia nervosa very often go successfully through the process of psychosocial adaptation and develop satisfying psychosexual relationships; however, they are not able to overcome their dependence on family or background, and the obsession with thoughts of weight and body shape [15, 16, 17].

CONCLUSIONS

An analysis of the data gathered in this study points to the correlation between the mothers' and their daughters' perception and evaluation of body image. Thus perception of body image, and in particular the discrepancy between a desired body shape and the individual's current figure (the way I perceive and assess my own body and appearance) may significantly determine developmental disharmony which occurs in this area of a young woman's identity.

The question arises whether we deal with reciprocal stimulation in terms of body image assessment. Is it a slim, teenage daughter, constantly losing weight, who stimulates her mother to give more consideration to the way she looks and her current weight? And vice versa, isn't it the mother who establishes parental educational patterns for her daughter to follow?

This research should be considered as an introduction to further studies since it was conducted in a small group of subjects.

Taking into consideration a recent increase in the incidence of anorexia and bulimia nervosa in the population of contemporary young Polish women, it is worth emphasising the growing need of psychologists to work at diagnosing and treating body image disturbances in teenage sufferers, but it is also important to take into account their mothers' body image when developing appropriate therapies.

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