



## Interpersonal profiles in eating disorders: Ratings of SASB self-image

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**Introduction:** Although evidence suggests that interpersonal psychotherapy may be an efficacious treatment for eating disorders, there is surprisingly little systematic knowledge about the interpersonal world of these patients.

**Method:** SASB self-image ratings were used to explore interpersonal profiles in a large heterogeneous sample of eating disorders ( $N = 830$ ), matched normal controls ( $N = 105$ ) and a small group of controls with subclinical depression ( $N = 26$ ).

**Results:** Eating disorder patients clearly presented with significantly more negative interpersonal profiles compared to controls. Within the eating disorder group, anorexics were characterized by high self-control, self-blame and self-attack. Patients with binge eating disorder expressed the least negative self-image, and were significantly more self-affirming than bulimics and less self-controlling than patients with atypical eating disorders.

**Conclusions:** Eating disorder patients may have distinct interpersonal profiles that increase the risk of negative therapeutic reaction. Better knowledge of interpersonal processes in eating disorders may help to improve both diagnostic assessment and treatment.

Interpersonal factors have been posited to be of aetiological significance for the development of eating disorders (Bruch, 1973; Palazzoli, 1979). More recently, a short-term manualized application of interpersonal psychotherapy (IPT) has been heralded as an effective treatment method for both bulimia nervosa (BN) (Fairburn,

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1993) and anorexia nervosa (AN) (McIntosh, Bulik, McKenzie, Luty, & Jordan, 2000). However, surprisingly little is known about the interpersonal world of the eating disorder patient. Better knowledge of interpersonal factors in eating disorders is important, since it may improve diagnosis and treatment through better awareness of relevant psychological dimensions and by increasing understanding of the role of interpersonal issues in the treatment process.

Theoretically, the term 'interpersonal' can be delineated in terms of both its external behavioural antecedents and its internal consequences for a person's images of self and others. The ongoing reciprocal interaction of these forces can be said to constitute the dynamic of a person's interpersonal world. Sullivan (1953) understood this when he argued that the interpersonal comprises not only patterns of interaction between self and others, but also the process of introjection by which these interactions are internalized. According to his theory, self-image is a guiding force in a person's perceptions and interpretations of interactions with others. Sullivan reasoned that a person's self-image is based on how others have treated him or her. What's more, because self-image is important for how a person interacts with others, it also plays a key role in determining how others respond to him or her.

However, systematic research into interpersonal aspects of eating disorders has suffered from a number of shortcomings. First, divergent assessment methods have been used, which have left the meaning and significance of previous findings unclear. These methods have included short questionnaires focusing on perceptions of partner relationships and the ability to relate to others (O'Mahoney & Hollwey, 1995), ratings of ongoing social experiences (Steiger, Gauvin, Jabalpurwala, Séguin, & Stotland, 1999), assessment of cognitive aspects of close relationships (Zaitsoff, Geller, & Srikameswaran, 2002), and measures centred on attachment style and social anxiety (Goodwin & Fitzgibbon, 2002). Secondly, these measures have tended to rely on the assessment of a unitary interpersonal dimension, most often self-esteem (Gual *et al.*, 2002; Israel & Ivanova, 2002; Mendelson, McLaren, Gauvin, & Steiger, 2002; Sanftner & Crowther, 1998; Steinberg & Shaw, 1997). Little attention has been paid to examining profiles of variables that constitute a wider range of interpersonal phenomena. Thirdly, most studies have been focused on AN and BN (Fairburn, Cooper, Doll, & Welch, 1999; Schupak-Neuberg & Nemeroff, 1993), and have excluded other important diagnostic categories such as those with atypical eating disorders (i.e. eating disorder not otherwise specified [EDNOS]) and binge eating disorder (BED). Studies that have examined EDNOS and BED (Mendelson *et al.*, 2002; Sanftner & Crowther, 1998) have utilized small numbers of patients recruited from a single tertiary treatment centre. Since EDNOS may comprise 30–60% of eating disorder cases (Fairburn & Walsh, 2002), a large proportion of cases may have been omitted.

The Structural Analysis of Social Behavior (SASB) developed by Benjamin (1974, 1984, 1996b) is a potentially effective method for examining interpersonal aspects of eating disorders. It has the advantages of being theoretically well founded, empirically established and clinically useful within the context of different forms of psychotherapy.

Unlike methods that focus on a single dimension, the SASB model is built upon two axes, interdependence and affiliation, that are assessed in terms of three surfaces, each with a specific interpersonal focus (i.e. other, self and self-image). The axes of the third surface of self-image, which formed the focus of the present study, can be understood in terms of self-control versus spontaneity and self-love versus self-hate. Different combinations of the two axes form interpersonal profiles of self-perceptions that embody eight distinct clusters.

Although all three SASB surfaces are central components of a person's interpersonal world, studying the third surface of self-image is particularly important, since self-image can be seen as forming the cornerstone of a person's ongoing interactions with others. As such, self-image can be used to better understand a person's actions and reactions in interpersonal situations. According to Benjamin (1996a, p. 148), SASB embodies predictive principles that 'can suggest what may have antedated and what may follow an interpersonal event'. For example, Benjamin maintains that blame from other tends to be internalized into self-blame, and that this in turn results in the establishment of a pattern where others are perceived as blaming. Another important reason for focusing on the third surface of SASB concerns clinical utility. Pathological patterns of self-image can be addressed using interpersonal, psychodynamic and cognitive forms of psychotherapy. By better understanding the nature of self-image in eating disorders, it will be easier to confront and change pathological forms of interpersonal behaviour using a variety of psychotherapeutic orientations.

Previous research using SASB on eating disorders has focused primarily on the third surface, and suggests that patients with AN and BN have more negative self-images compared to controls. Swift, Bushnell, Hanson, and Logeman (1986) examined 30 hospitalized adolescent anorexics, and found them to have considerably more negative self-image than normal controls. Sheppy, Friesen, and Hakstian (1988) studied 30 anorexics between 15 and 23 years of age, and found them to have significantly more negative forms of self-image compared to 34 matched controls. Friedman, Wilfley, Robinson Welch, and Kuncze (1997) compared 37 adult binge eaters and 37 adult bulimics involved in in-patient treatment on all three SASB surfaces, and found that bulimics had greater levels of self-directed hostility compared to normal controls. Wonderlich, Klein, and Council (1996) examined self-image and family factors with a 72-item SASB questionnaire, and also found bulimics to have significantly higher levels of self-directed hostility, as well as lower self-love compared to normal controls. Although their study did indeed examine all three SASB surfaces, it only utilized eight items pertaining to self-image. In the most extensive use of the SASB to date among eating disorders, Humphrey (1988) examined 74 families with either an anorexic or bulimic member. Families rated both their introjects and their relationships with each other on a 372-item SASB questionnaire. Anorexics and bulimics expressed significantly more self-destructive self-images compared to normal controls. Taken as a whole, these studies have been a step forward in the understanding of self-image in eating disorders; nevertheless, they have suffered from some serious shortcomings. Sample sizes have

been small, highly selected and have used different versions, in terms of number of items, of the questionnaires from the SASB model. None of the studies has examined the full range of eating disorders.

The aims of the present research were, therefore, to explore interpersonal profiles, as defined by ratings of SASB self-image, in a large heterogeneous sample of eating disorders, to make comparisons between patients and relevant controls, and to examine differences across diagnostic subgroups. In particular, the study attempted to examine whether negative self-image is a general characteristic of eating disorders, or a dimensional phenomenon with distinct differences in self-image between diagnostic groups.

## **Method**

### **Sample/participants**

The present research was conducted within the framework of the Co-ordinated Evaluation and Research at Specialized Units for Eating Disorders in Sweden (CO-RED) project. This longitudinal naturalistic study has followed patients treated at 15 specialist treatment centres for eating disorders across Sweden. Participating centres offer a wide variety of treatment forms such as in-patient, day-patient and out-patient forms of treatment, individual psychotherapy, family and group therapy, psychoactive drugs, and expressive forms of treatment using dance and art. A battery of self-report and interview-based measures is used to assess eating disorder and concomitant psychopathology at initial assessment, and subsequently after 6, 12, 18 and 36 months. Data collection commenced in August 1996 and ended in December 2001. No exclusion criteria were applied; simply being treated at the unit provided the basis for inclusion in the project. The sample is considered to be representative of adult patients with eating disorders, treated at specialized units for eating disorders in Sweden.

All patients who were part of the CO-RED database in August 2001, and who had completed the SASB at initial assessment, were investigated ( $N = 830$ ). The distribution of DSM-IV eating disorder diagnoses was AN 21%, BN 39%, BED 6% and EDNOS 34%. Patients were classified as EDNOS if they did not fully meet criteria for AN, BN or BED but were being treated for an eating disorder at one of the participating units. All participants had provided informed consent. Age ranged from 14 to 54 years ( $M = 24.9$ ,  $SD = 6.3$ ); 12 participants were male. Body mass index (BMI) ranged from 10.4 to 54.0 ( $M = 20.6$ ,  $SD = 5.6$ ). A group of normal control participants ( $N = 105$ ) of similar age drawn from a student population in Uppsala, Sweden, was used as a comparison group on the SASB. Normal controls were female, and between 19 and 35 years of age ( $M = 22.9$ ,  $SD = 3.7$ ). Comparisons were also made with a small group of 26 female students from Uppsala between 19 and 35 years of age ( $M = 22.5$ ,  $SD = 3.2$ ) with subclinical depression. These individuals were selected using Beck's Depression Inventory, and a cut-off score of 10 or above, which has been shown to indicate mild depressive symptoms (Beck & Steer, 1996).

## Measures

The Rating of Anorexia and Bulimia (RAB) Interview was used to assess eating disorder and related psychopathology (Clinton & Norring, 1999). The RAB is a semi-structured interview comprising 56 items covering a wide range of eating disorders and related psychopathology, as well as background variables, and has shown good internal consistency, as well as inter-rater and test-retest reliability (Clinton & Norring, 1999; Nevenon, 2000). Diagnoses were based on RAB data together with expert ratings of specific DSM-IV criteria. Further assessment of eating disorder symptoms was made using the self-report measure Eating Disorders Inventory—2 (EDI-2; Garner, Olmsted, & Polivy, 1983), a widely used questionnaire in the study of eating disorders. Psychiatric symptoms were measured using a shortened (63-item) version of the Symptom Check List—90 (SCL-90; Derogatis, Lipman, & Covi, 1973). The SCL-90 was shortened by removing the subscales for phobic anxiety, paranoid ideation, psychoticism and additional scales. Weight was analysed in relation to height using BMI.

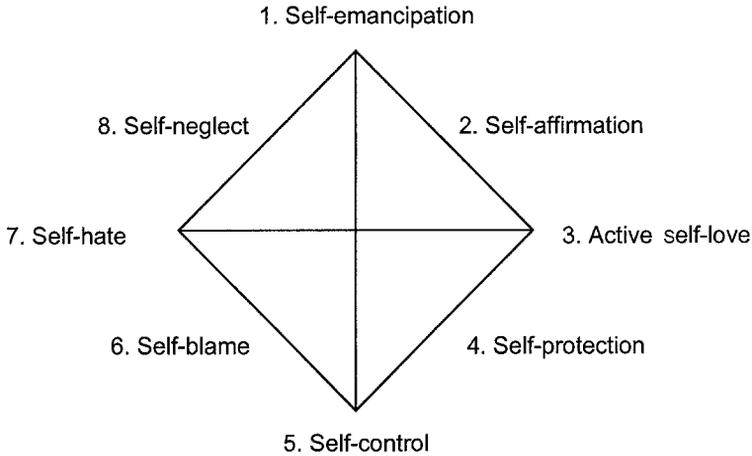
Self-image was assessed using the SASB (Benjamin, 1974). For the purposes of the present study, the SASB Intrex questionnaire for assessing self-image was used (i.e. SASB self-image [3rd surface]). The questionnaire comprises 36 self-referential statements, some framed positively and others negatively. Responses are given on a scale from 0 to 100 with 10-point increments. Responses of 40 or above represent confirmation of the statement, whereas responses below 40 designate non-confirmation. The questionnaire forms eight clusters of self-image:

- (1) self-emancipation,
- (2) self-affirmation,
- (3) active self-love,
- (4) self-protection,
- (5) self-control,
- (6) self-blame,
- (7) self-hate, and
- (8) self-neglect.

Cluster scores are obtained by dividing the sum of the items comprising the cluster by the number of items in the cluster. Recent empirical studies support the reliability of the SASB self-image questionnaire with a total  $\alpha = .74$  (Lorr & Strack, 1999). The theoretical distribution of these clusters in relation to the model's axes is illustrated in Figure 1.

## Procedure

Data were collected by staff at participating treatment units. For the most part these were either qualified psychiatrists or clinical psychologists with experience in the assessment and treatment of eating disorders, although other professionals, such as experienced nurses and social workers, also took part. Administration of measures took place at initial diagnostic assessment prior to treatment, or within two (in-patient) to four (out-patient) weeks of commencing treatment at the latest.



**Figure 1.** The simplified cluster version of the SASB model, 3rd surface.

### **Analysis**

Data analysis was conducted in a stepwise fashion. Initial differences between eating disorder patients and controls were explored in terms of self-image and general clinical variables. In ensuing steps, comparisons between diagnostic groups were made, and possible confounding influences on self-image were examined.

## **Results**

### **Step 1: Comparisons with normal controls**

Comparisons with normal controls were made by plotting SASB clusters for the four diagnostic groups in the present sample against the two control groups. These comparisons are presented graphically in Figure 2. Compared to normal controls, profiles of eating disorder patients were characterized, in particular, by low levels of self-affirmation and high levels of self-blame and self-hate. Compared to participants with subclinical depression, profiles of eating disorder patients were characterized by low self-affirmation and high levels of self-blame and self-hate.

### **Step 2: Between-group diagnostic comparisons on clinical variables**

Initial diagnostic differences on clinical variables were examined in a series of one-way ANOVAs on BMI ( $F = 149.0, p < .001$ ), EDI-2 eating disorder psychopathology ( $F = 17.7, p < .001$ ) and SCL-90 = 4.3, n.s.. When pairwise comparisons were made using *post hoc* Scheffé tests, anorexics, as would be expected, had significantly lower BMI than the other three patient groups ( $p < .05$ ). What's more, bulimics presented with significantly greater eating disorder psychopathology on the EDI-2 compared to all other patient groups ( $p < .05$ ).

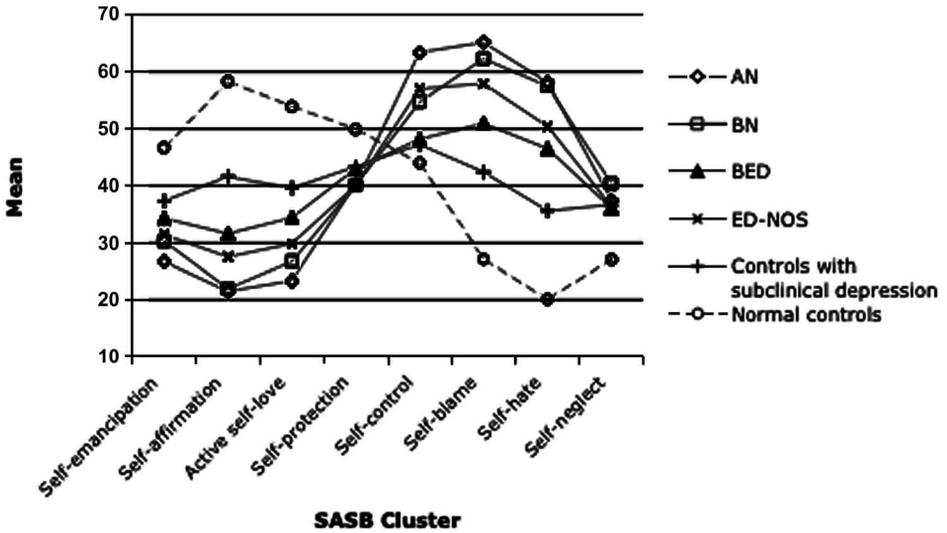


Figure 2. Diagnostic differences on SASB self image—results of ANOVA.

### Step 3: Between-group comparisons on self-image

Initial between-group differences on the SASB were examined using one-way ANOVA. Results are presented in Table 1.

Table 1. Means (SDs) for initial between-group diagnostic differences on SASB clusters with ANOVA, significance of  $F$ , and *post hoc* Scheffé tests

	AN	BN	BED	EDNOS	$F$	$p^*$
1. Self-emancipation	26.7 (14.5)	30.3 (14.1)	34.3 (16.6)	31.4 (13.7)	5.7	a, b, c
2. Self-affirmation	21.5 (18.9)	21.9 (16.9)	31.6 (23.0)	27.5 (18.8)	8.3	b, c, d, e
3. Active self-love	23.3 (16.9)	26.7 (16.1)	34.4 (20.0)	29.8 (17.5)	7.5	b, c
4. Self-protection	40.3 (16.4)	40.1 (17.0)	43.0 (17.2)	41.1 (17.3)	0.4	—
5. Self-control	63.4 (19.1)	54.7 (17.9)	48.2 (18.4)	57.0 (18.5)	11.4	a, b, c, f
6. Self-blame	65.2 (23.3)	62.3 (21.8)	51.0 (24.3)	57.9 (22.5)	6.8	b, c, d
7. Self-hate	58.1 (23.5)	57.5 (20.7)	46.5 (25.4)	50.4 (23.5)	7.6	b, c, d
8. Self-neglect	37.4 (19.2)	40.4 (18.0)	36.1 (17.4)	36.3 (19.4)	2.6	—

\* Results of *post hoc* Scheffé tests ( $p < .05$ ): a = AN vs. BN; b = AN vs. EDNOS; c = AN vs. BED; d = BN vs. EDNOS; e = BN vs. BED; f = EDNOS vs. BED.

Anorexics scored significantly lower than the other three patient groups on self-emancipation ( $p = .01$ ) and significantly higher on self-control ( $p = .05$ , effect sizes between .34 and .81). Bulimic patients compared to patients with BED scored significantly lower on self-affirmation ( $p = .01$ ) and significantly higher on self-control,

self-blame and self-hate ( $p = .001$ ). Atypical patients scored significantly higher than patients with BED on self-control ( $p = .05$ , effect size = .47). No significant between-group differences were found on self-protection or self-neglect.

#### **Step 4: Disentangling possible confounding influences**

In this step, the possible confounding influences of general psychopathology on self-image was explored. This was done by computing a principal components analysis (PCA) using all eight SASB clusters plus the total scores from the EDI-2 and SCL-90. The rationale for this was that such a step would produce a large first principal component with high loadings on all 10 variables. This component could subsequently be used as a covariate when re-analysing between-group differences on self-image. As expected, PCA produced a large first component explaining 48.2% of the variance. SASB Clusters 2 (self-affirmation), 3 (self-love) and 4 (self-protection), which are usually associated with positive forms of self-image, had high negative loadings on the first component (i.e.  $< -.50$ ), while Clusters 6 (self-blame), 7 (self-hate) and 8 (self-neglect), as well as the EDI-2 and SCL total scores, had high positive loadings (i.e.  $> .60$ ). Following recommendations by Miller and Chapman (2001), univariate ANOVA was then conducted in order to examine possible interaction effects between Component 1 and diagnosis on individual SASB clusters. Results revealed no significant interaction effects, which suggested that ANCOVA could be of help in further understanding the nature of the observed diagnostic differences in self-image. When between-group differences in SASB clusters were subsequently calculated using Component 1 as a covariate, results were essentially the same as those obtained in step 3—the exception being that differences between bulimics and patients with atypical eating disorders on self-blame and self-attack were now non-significant. Now anorexics were found to be significantly more self-blaming and self-hating than bulimics, atypical patients and patients with BED ( $p = .01$ ). No significant between-group differences were found on self-protection and self-neglect. These results are presented in Table 2.

Taken as a whole, the results of the four-step analysis suggest that in comparison with a normal sample, eating disorder patients clearly have negative self-images. When diagnostic groups were compared, anorexics were found to be significantly more self-controlling, self-blaming and self-hating than patients with BN, BED and atypical eating disorders. Patients with BED were also significantly more self-affirming than bulimics and less self-controlling than patients with atypical eating disorders.

## **Discussion**

The present research attempted to explore interpersonal profiles in eating disorders and, in particular, examine whether negative self-image is a general characteristic of

**Table 2.** Means for estimated marginal means on SASB clusters and pair-wise comparisons between diagnostic groups following ANOVA with component I as covariate

	AN	BN	BED	EDNOS	F	p < .05
1. Self-emancipation	26.5	30.3	34.2	31.2	5.5	a, b, c
2. Self-affirmation	21.8	23.2	29.6	26.1	4.4	b, c, d, e
3. Active self-love	23.4	28.0	31.8	28.0	5.5	a, b, c
4. Self-protection	40.6	40.9	41.5	40.4	0.1	—
5. Self-control	63.1	54.3	49.2	57.7	11.7	a, b, c, f
6. Self-blame	64.5	59.4	56.5	61.2	6.7	a, b, c
7. Self-hate	59.7	54.4	52.4	53.9	3.2	a, b, c
8. Self-neglect	38.8	37.9	40.2	38.5	1.0	—

a = AN vs. BN; b = AN vs. EDNOS; c = AN vs. BED; d = BN vs. EDNOS; e = BN vs. BED; f = EDNOS vs. BED.

these patients. Important strengths of the study include the use of a clinically informative and empirically established measure of self-image (SASB), a large unselected sample of patients with the full range of DSM-IV eating disorders, as well as the use of both normal and subclinical control groups. Weaknesses include the size of the control groups (especially the subclinical control group) relative to the eating disorder group, and the lack of a rater-based assessment of self-image. As regards the former, conclusions about eating disorder patients in relation to individuals with subclinical depression must be considered preliminary pending the use of a larger subclinical or psychiatric sample. As regards the latter, the SASB model does offer a coding system that can be used by expert raters in interview situations; however, use of such methods was not practicable given the large-scale naturalistic nature of the CO-RED project. Such methods could, nonetheless, be utilized in future studies.

As a whole, the present results suggest that eating disorder patients appear to have decidedly negative interpersonal profiles compared to relevant controls. Results support earlier findings concerning anorexics and bulimics that have utilized the SASB (Friedman *et al.*, 1997; Humphrey, 1988; Sheppy *et al.*, 1988; Strauss & Ryan, 1987; Swift *et al.*, 1986; Wonderlich *et al.*, 1996), as well as findings concerning EDNOS patients that have been based on the use of other measures (Mendelson *et al.*, 2002). In particular, the profiles of self-image among eating disorder patients appear to be distinguished by low levels of self-affirmation and high levels of self-blame and self-hate.

There appear to be important dimensional differences across diagnostic groups of eating disorder patients. These are illustrated by the high levels of self-control, self-blame and self-hate among anorexics that cannot be accounted for by differences in general psychopathology, as suggested by the covariance analysis. Interestingly, such profiles reflect Bruch's (1973) classic description of primary anorexia. She emphasized

that the main issue in AN centres on a struggle for control, and that there is often excessive vulnerability to criticism.

Patients with BED presented with less negative self-images compared to other eating disorder diagnoses. They rated themselves as more self-emancipating, self-affirming and self-loving, as well as less self-controlling than the other groups of patients. Although this is an ostensibly positive finding, it may also be indicative of some serious clinical problems that characterize these patients, considering the findings of Madison (1997). In his cluster analysis of eating disorders, two subgroups of patients emerged, which were characterized by positive and negative interpersonal style respectively. However, as these researchers argue in the light of interpersonal theory, patients with positive interpersonal style may not necessarily be easier to engage in therapy than those with negative interpersonal style. Madison and co-workers contend that nurturant and sociable patients may tend to evoke co-operative and trusting responses from treatment staff, which in turn could reinforce patients' underlying tendencies toward social conformity and thereby hinder change. Applied to BED patients, this might help to understand why some patients show a high degree of treatment compliance but little change. Nevertheless, systematic investigation of such possibilities is needed before firm conclusions can be drawn.

Additional clinical implications of the present study can be seen in the light of interpersonal theory. Sullivan (1953) argued that self-image serves to reduce anxiety by making the actions of others more understandable and predictable. Accordingly, a patient with negative self-image could be expected to react and respond to others in a way that tends to confirm negative self-image. The comments and actions of others are, thereby, easily interpreted as criticism, hostility or neglect.

The negative interpersonal profiles of eating disorder patients in general, and anorexics in particular, may indicate a considerable risk for development of negative psychotherapeutic reaction. For those experienced in the treatment of eating disorders, the difficulty of trying to engage an impervious patient in treatment is well known. A patient's subjective sense of suffering and despair over the symptoms of an eating disorder, which at the same time can be coupled with resistance to treatment, can be both puzzling and problematic for the therapist. This phenomenon could, however, be a reflection of the patient's negative self-image. The patient may not be impervious to treatment as such, but may be acting to defend and maintain a negative self-image which, although maladaptive and subjectively distressing, also allows her to make sense of the world around her. Consequently, once in treatment, there may be a risk that the patient misconstrues the actions of the therapist in a way that reinforces negative self-image, and thereby adversely affects the psychotherapeutic process. In summary, using a sample of unprecedented size and representativeness we found generally negative interpersonal profiles of eating disordered patients. There were also significant differences between diagnostic groups, results that underscore the importance of taking into account patients' interpersonal profiles in psychotherapeutic treatment.

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