



Depressive personality dimensions and alexithymia in eating disorders

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Abstract

An association has been reported between high levels of alexithymia and depression in patients with eating disorders. This study has examined alexithymic features and depressive experiences in patients with DSM-IV eating disorder (restricting anorexia, $n=105$; purging anorexia, $n=49$; bulimia, $n=98$) and matched controls ($n=279$). The subjects were assessed with the Toronto Alexithymia Scale (TAS-20); the Beck Depression Inventory; and the Depressive Experiences Questionnaire, which defines two types of depressive personality style (dependent and self-critical). The patients had high levels of alexithymic features and depressive symptoms. Comparisons of alexithymic features between patients and controls after adjustment for depression showed a significant difference between bulimic patients and controls for the TAS Difficulty Identifying Feelings factor, and between restricting anorexic patients and controls for the TAS Difficulty Describing Feelings factor. With regard to depressive personality styles, only scores on the self-critical dimension were significantly higher in bulimic patients than in restricting anorexic patients and controls. In the entire group of eating disorders, dependency was associated with the TAS Difficulty Identifying Feelings factor only in anorexic patients. Self-criticism, on the other hand, was associated with the TAS Difficulty Identifying Feelings factor in all subtypes of eating disorders, although the relationship was significantly stronger in restricting anorexic than in bulimic patients. The results of

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this study suggest that people with restricting anorexia and bulimia show specific clinical profiles associating alexithymic features and depressive dimensions.

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1. Introduction

Eating disorders are currently considered as multifactorial heterogeneous syndromes best understood as final common pathways resulting from the interplay of several neurobiological, psychological, and sociocultural predisposing factors (Garner and Myerholtz, 2000). Within a developmental framework, some authors have suggested integrating these multiple levels and conceptualizing the eating disorders as developmental disorders of self-regulation, with impairment in the capacity to process and regulate emotions as the primary disturbance (Goodsitt, 1983; Grotstein, 1986; Taylor et al., 1997). The concept of alexithymia, literally “no words for feelings” (Sifneos, 1973), has been proposed to operationalize this cognitive–affective disturbance, which is characterized by a difficulty in identifying and describing feelings, a diminution of fantasy, and concrete and poorly introspective thinking (Taylor et al., 1997). Both factor-analytic and longitudinal studies have supported the view that alexithymia is a stable personality trait rather than a state-dependent phenomenon linked to depression or to clinical status (Luminet et al., 2001). Several studies have reported high levels of alexithymia in subjects with eating disorders, especially anorexia nervosa (Bourke et al., 1992; de Groot et al., 1995; Taylor et al., 1996; Corcos et al., 2000). Due to their limitations in regulating emotions, alexithymic subjects are overwhelmed by uncontrollable sensations that they try to regulate by resorting to maladaptive self-stimulatory behaviors, such as starving or bingeing. These strategies may be considered as misguided attempts to organize affects and internal states meaningfully and to consolidate a defective sense of self (Goodsitt, 1983; Taylor et al., 1997). Attachment theorists have sought to explain the origin of this impairment in emotion regulation as defective bonding that develops in an inadequate nurturing environment. It has been shown, in fact, that caregiver

reactivity to emotional states in children determines long-lasting patterns of affective regulation (Kraemer and Loader, 1995). Insecure children, for example, interacting with insensitive parents, learn to ward off emotions and to replace comfort that would ordinarily come from the mothers with self-soothing strategies that could be considered as precursors of other maladaptive self-regulating behaviors (Crittenden, 1994). Patterns of insecure attachment have been associated with increased risk for anxious–depressive psychopathology and adverse relationship outcomes (Sund and Wichstrom, 2002), and such patterns have been observed in eating-disordered populations (Ward et al., 2000). These patients, lacking self-confidence and an adequate self-regulating psychic structure, are subject to strong negative affective states and are unduly influenced by external factors. They experience negative self-evaluations and concerns about perceived negative evaluations from others that are accompanied by anxiety and depression, especially in bulimic subjects (Herzog et al., 1992). In his dual-pathway model of bulimic behaviors, Eric Stice (1998) has suggested that these negative affects may precipitate disinhibited eating among vulnerable restrained eaters. This hypothesis can be compared with the concept of Heatherton and Baumeister (1991) for whom binge eating provides a means of avoiding unpleasant states of negative self-awareness through the narrowing of attention to specific facets of the immediate environment.

Within eating disorder subjects, although all subjects are characterized by a driven pursuit of thinness, only a subgroup shows binge-eating behaviors. It is possible that the pathological relation to food, body image and weight of eating disorder subjects could reflect a common outcome stemming from the same cardinal trait, namely, a restrained pattern of emotionality, whereas different secondary traits in the personality dynamics of the subgroups could lead to the specific weight strategies adopted

to regulate emotions. It has been observed, for example, that while neurotically introverted anorexics are often obsessively successful dieters (Speranza et al., 2001), the episodic overeating of bulimics could be a manifestation of their impulsive and dysregulated mood (Davis and Claridge, 1998; Corcos et al., 2001). From a developmental perspective, these personality organizations can be considered as the specific result of a synergistic interaction between different pressures, among which two hold a significant place: the need to establish satisfying interpersonal relationships (defined as the anaclitic or dependent developmental line) and the need to achieve a positive and cohesive sense of self (defined as the introjective or self-critical developmental line). Blatt and colleagues have suggested that a lack of balance between these two developmental lines could imply a qualitative difference in the expression of psychopathology. For example, they have differentiated two types of fundamental depressive experiences along a continuum from normality to pathology: a dependent/anaclitic depression associated with feelings of loss, abandonment and loneliness, and a self-critical/introjective depression associated with low self-esteem, feelings of failure, culpability and lack of self-confidence (Blatt and Zuroff, 1992). To assess these two depressive dimensions, they developed a self-rating questionnaire (the Depressive Experience Questionnaire; Blatt et al., 1976), which has been widely used (Zuroff et al., 1990). As Fonagy and Target (2002) have outlined, the majority of studies neither explore nor differentiate these qualities of depressive feelings, although the experience of psychological distress and the expression of psychopathology can be critically different according to the predominance of one of these two dimensions (Westen et al., 1992).

The aim of the present study was twofold. First, we wanted to assess the prevalence of alexithymia in a large sample of DSM-IV anorexic and bulimic patients. The second aim was to examine the relations between alexithymic features and depression, not only by using a dimensional measure of depression but also by defining the quality of depressive symptoms associated with the subtypes of eating disorder. We hypothesized that if alexithymia were a common feature of eating disorders, it would be differently

related to the two types of depressive experience in eating disorder subtypes. Moreover, on the basis of Heatherton and Baumeister's model of bulimia, we hypothesized that specific experiences of depression would be most common among vulnerable alexithymic subjects showing binge-eating behaviors. Bulimic subjects would be expected to be especially sensitive to those symptoms of depression associated with a negative self-awareness such as low self-esteem, culpability and lack of self-confidence as they are defined in the self-critical/introjective depression of Blatt's Depressive Experience Questionnaire. Anorexic alexithymic subjects, on the other hand, would be expected to present symptoms of the dependent depressive dimension in relation to their known comorbidity with dependent personality disorders (Bach et al., 1994).

2. Methods

2.1. Subjects

Participants of this study were selected from a larger research project called "Dependence Network 1994–2000" (INSERM 494013), an international (France, Switzerland, and Belgium) multicenter study investigating the common clinical and psychopathological features shared by different disorders (eating disorders and substance-related disorders) gathered together under the heuristic concept of dependence. The complete clinical protocol of the network has been described elsewhere (Final Report of the Dependence Network, INSERM, 2002).

For this study, only female subjects aged between 15 and 45 years who had requested care in hospital or consulting facilities and had been assigned a DSM-IV diagnosis of eating disorder, whether of anorexia nervosa (restricting or bulimic/purging subtype) or bulimia nervosa (bulimic/purging or non-purging subtype), were included in the sample (American Psychiatric Association, 1994).

A group of healthy subjects, matched to the patients by age and socioeconomic status, was recruited by announcements in nursing schools and in medical facilities. Control subjects were screened to eliminate current and lifetime substance abuse and eating disorders.

2.2. Assessment procedure

All the subjects completed a research protocol, which consisted of a clinical interview (including sociodemographic and diagnostic data) and a self-rated questionnaire eliciting psychopathological features, namely alexithymia and depression. Diagnoses of eating disorders and substance-related disorders were established using the Mini International Neuropsychiatric Interview (MINI-4.1, lifetime version), a structured, validated diagnostic instrument, jointly designed by French and American teams (Sheehan et al., 1997, 1998), which explores in a standardized fashion each criterion necessary for the establishment of current and lifetime DSM-IV axis I main diagnoses. The MINI has shown good reliability with the Composite International Diagnostic Interview and good interrater reliability (Lecrubier et al., 1997). The MINI has been translated and is presently used in about 40 languages. The assessment was conducted by a trained psychiatrist or a clinical psychologist expert in the field of addictive disorders.

The severity of illness was assessed by the Severity of Illness item of the Clinical Global Impressions (CGI), a three-item scale developed by the National Institute of Mental Health (1970) to assess treatment response in psychiatric patients. The CGI requires the clinician to rate on a 7-point scale (1—normal to 7—extremely ill) the severity of the patient's illness at the time of assessment, relative to the clinician's past experience and training with patients with the same diagnosis.

Alexithymia was rated using the French translation of the revised Toronto Alexithymia Scale (TAS-20; Bagby et al., 1994; Loas et al., 1995), a self-report scale with 20 items rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The TAS-20 has demonstrated reliability and validity, and is currently the most widely used measure of the alexithymia construct. The 20 items of the TAS are clustered into three factors corresponding to the theoretical dimensions of alexithymia: Difficulty Identifying Feelings (DIF), Difficulty Describing Feelings (DDF), and Externally Oriented Thinking (EOT). The scores of the sub-factors were calculated by using the French factor structure (Loas et al., 2001). The cut-off point used for alexithymia was ≥ 56 (Loas et al., 1996).

Depression was measured using two different instruments: the abridged version of the Beck Depression Inventory (BDI-13) and The Depressive Experiences Questionnaire (DEQ). The BDI is a self-report inventory measuring characteristic attitudes and symptoms of depression (Beck et al., 1961). An abridged version with 13 items selected within all the items showing a high correlation (>0.90) with the total score of the BDI-21 has been developed as a specific tool for epidemiological studies including clinical and non-clinical subjects (Beck and Beck, 1972). The 21-item and the 13-item forms have shown correlations ranging from 0.89 to 0.97 and a similar factor structure indicating that the short form is an acceptable substitute for the long form (Beck et al., 1974). Both the original version of the BDI-13 and the French translation have high internal consistency and substantial test-retest reliability (Bobon et al., 1981; Collet and Cottraux, 1986; Beck et al., 1988). In this study, we used the dimensional score of the BDI-13 (0–39).

The Depressive Experiences Questionnaire (DEQ; Blatt et al., 1976) is a 66-item self-report scale rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The DEQ was designed to assess the introjective and anaclitic personality dimensions hypothesized by Blatt and Zuroff (1992) to underlie different forms of depression. The instrument was developed by assembling a pool of items describing experiences frequently reported by depressed individuals. A principal component analysis has identified two depressive dimensions. The first factor involves items that are internally directed and reflects concerns about self-identity (self-critical personality dimension). The second factor consists of items that are more externally directed and refers to a disturbance of interpersonal relationships (dependent personality dimension). A third, less frequently studied, factor has emerged, assessing the functioning of the subject and the subject's confidence in his/her resources and capacities (efficacy). Scales derived from these factors have shown high internal consistency and substantial test-retest reliability (Bagby et al., 1992; Zuroff et al., 1990). In the present study, we used a French factor analysis showing the same three factors of the original study (Atger et al., 2003).

The body mass index (BMI) of the patients (weight [kg]/height² [m]) was determined by the investigator at the time of the assessment, which was performed in the first week for consulting outpatients and during the first 2 weeks for hospitalized inpatients. All investigators participated in training sessions before completing the evaluation, including training by an official trainer for the use of the MINI (Emmanuelle Weiller, INSERM U 302).

Data were collected between January 1995 and March 1999. The protocol was approved by the local ethics committee (Paris-Cochin Hospital). After full information was provided, all subjects gave written consent for participation in the study.

2.3. Statistical analysis

Four groups were defined for statistical analyses: patients representing the three subtypes of eating disorder, restricting anorexia nervosa (ANR), bulimic/purging anorexia nervosa (ANP), and bulimia nervosa (BN), as well as a control group. Comparisons between groups were made by the chi-square test for categorical variables and one-way analysis of variance (ANOVA) followed by Bonferroni post hoc analyses for continuous variables, as appropriate. Analysis of covariance (ANCOVA) with age, BMI and BDI depression score as covariates was used to calculate the effect of diagnostic groups on TAS and DEQ scores. Partial correlations with BDI as constant followed by a Fisher *z* test to compare independent correlations were computed to evaluate the relationships between variables in the different diagnostic subtypes. Results are presented as mean \pm SD. Statistical analyses were performed with SPSS, version 10.1.

3. Results

The final sample comprised 105 subjects with restricting anorexia (ANR), 49 with bulimic/purging anorexia (ANP), 98 with bulimia (BN) and 279 healthy control subjects. The final number of patients and controls differed because only subjects who completed the entire questionnaire entered into the study. The sample was predominantly composed of single people and students. Subjects with restricting

anorexia were younger than subjects with bulimia ($t = -3.7$, $df = 195$, $P < 0.001$). As expected, restricting and purging anorexic patients had a lower body mass index than bulimic patients and controls. The diagnostic subtypes differed in their clinical status: subjects with restricting anorexia were more often inpatients than subjects with purging anorexia or bulimia ($\chi^2 = 79.8$, $df = 2$, $P < 0.001$), probably because hospitalization was generally decided on the basis of vital risks and especially on BMI status, which was lower in restricting anorexia. Restricting and purging anorexic patients showed a more severe disorder (CGI score) than bulimic patients ($F = 11.4$, $df = 2$, $P < 0.001$). Finally, Severity of Illness was higher for inpatients than outpatients (5.19 ± 0.8 vs. 4.5 ± 1.0 ; $t = 3.23$, $df = 99$, $P < 0.003$) (Table 1).

3.1. Depression and alexithymia scores

Table 1 presents scores on the various scales for the subtypes of eating disorders and for the controls. Eating disorder subtypes showed higher BDI scores than controls. Subjects with purging anorexia showed the highest scores, but differences from the other subtypes were not significant. The mean scores of eating disorder subtypes, and especially of purging anorexics, place this sample in a medium-to-severe range of depression.

All eating disorder subtypes had higher alexithymic scores than controls. As already observed in the literature, differences between eating disorders and controls were found in the total score of the TAS and in its first two factors, Difficulty Identifying Feelings (DIF) and Difficulty Describing Feelings (DDF). The third factor, Externally Oriented Thinking (EOT), did not differentiate eating disorders from controls. No significant differences were found among the eating disorder subtypes except for a trend for subjects with restricting anorexia to show higher levels than bulimics in the Difficulty Describing Feelings factor of the TAS. The ANCOVA performed with BDI, BMI and age as covariates showed that differences between patients and controls persisted only for bulimics in comparison to controls for the DIF factor and for restricting anorexics in comparison to controls for the DDF factor. Finally, once adjusted for the BDI score, a specific difference appeared between bulimic patients and controls on the EOT

Table 1
TAS, DEQ and BDI scores in clinical and control samples

Variables	ANR (N=105)		ANP (N=49)		BN (N=98)		Controls (N=279)		ANOVA		ANCOVA	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F(df=3)	P<	F(df=3)	P<
Age	20.4	5.3	21.6	4.9	23.5	5.7	21.8	5.3	4.78	0.005(a)		
Body mass index	15.0	1.8	15.9	2.1	21.2	3.9	21.1	2.8	152.0	0.000(b)		
CGI	5.0	0.9	5.1	1.1	4.4	1.3			11.43	0.000(c)		
Inpatients	85	81%	27	56.3%	17	17.4%			79.78	0.000(d)		
BDI-13	13.4	7.8	16.0	8.0	13.3	7.6	3.2	4.0	131.7	0.000(e)		
<i>TAS</i>												
–Total score	56.3	11.6	55.8	11.3	54.1	11.0	47.0	10.4	27.0	0.000(e)	1.4	0.25
–Identifying feelings (DIF)	21.5	6.2	22.7	6.2	21.9	6.1	15.6	5.4	51.4	0.000(e)	3.3	0.019(h)
–Describing feelings (DDF)	17.2	4.3	16.2	4.6	15.8	4.6	13.9	4.6	16.2	0.000(e)	2.8	0.037(i)
–Externally oriented (EOT)	17.6	4.7	16.9	4.1	16.4	5.1	17.5	4.4	1.6	0.20	6.1	0.000(h)
–TAS ≥ 56	59	56.2%	25	51.0%	44	44.9	62	22.2%	49.8	0.000(e)		
<i>DEQ personality dimensions</i>												
–Self-criticism (DEQ1)	1.4	1.1	1.9	0.8	1.8	0.8	0.2	1.0	93.1	0.000(e, f)	12.6	0.000(h,l)
–Dependency (DEQ2)	0.7	0.8	1.0	0.8	0.8	0.9	0.1	0.9	29.7	0.000(e, g)	2.0	0.11
–Efficacy (DEQ3)	–0.1	0.8	–0.3	0.7	–0.09	0.8	–0.05	0.8	1.4	0.24	1.3	0.29

CGI—Clinical Global Impressions; TAS-20—Toronto Alexithymia Scale; ANR—restricting anorexia nervosa; ANP—bingeing/purging anorexia nervosa; BN—bulimia nervosa; DEQ—Depressive Experience Questionnaire; BDI—Beck Depression Inventory; ANOVA—analysis of variance with Bonferroni post-hoc test; ANCOVA—analysis of variance (BDI, BMI, age). (a) Significant difference between ANR and BN; (b) significant difference between ANR/ANP and BN/controls; (c) significant difference between ANP and BN; (d) significant difference between the three groups; (e) significant difference between ANR/ANP/BN and controls; (f) significant difference between ANR and ANP/BN; (g) significant difference between ANR and ANP; (h) significant difference between BN and controls; (i) significant difference between ANR and controls; (l) significant difference between BN and ANR.

factor for which controls had higher scores than bulimic patients.

Though the Severity of Illness score differed according to the clinical status of the patients, inpatients with restricting anorexia did not show higher levels of total and sub-factor TAS scores than outpatients. This result suggests that the degree of recovery seems not to have a major influence on TAS scores.

Finally, categorical results were similar to dimensional ones. Statistical differences were observed between eating disorders and controls. Subjects with restricting anorexia showed higher rates of alexithymia, but these results were not significant.

In the depressive experiences assessed by the DEQ, all the patient subtypes scored higher than the control group on the three factors. Such differences reached significance for the self-critical and for the dependent personality dimensions. Subjects with bulimic/purg-

ing anorexia and subjects with bulimia showed significantly higher scores than subjects with restricting anorexia on the self-critical personality dimension of the DEQ. Subjects with bulimic/purging anorexia showed significantly higher scores than subjects with restricting anorexia on the dependent personality dimension of the DEQ. The differences, however, did not survive ANCOVA with depression score as covariate. The only differences that persisted after this adjustment were those between bulimic patients and controls and between bulimic and restricting anorexic patients for the self-critical personality dimension of the DEQ.

3.2. Correlations between TAS and DEQ

Correlations between the total and DIF factor scores of the TAS and the self-personality dimension of the DEQ were high and homogeneous for all

Table 2
Correlations between the TAS and DEQ controlling for depression (BDI)

Variables	BDI-13			DEQ 1 self-criticism			DEQ 2 dependency			DEQ 3 efficacy		
	ANR	ANP	BN	ANR	ANP	BN	ANR	ANP	BN	ANR	ANP	BN
TAS												
–Total score	0.46 ^a	0.41 ^a	0.54 ^a	0.35 ^a	0.35 ^b	0.37 ^a	0.26 ^b	0.31 ^b	0.09	–0.17	0.002	–0.002
Identifying feelings (DIF)	0.45 ^a	0.54 ^a	0.50 ^a	0.52 ^{a,c}	0.54 ^b	0.27 ^{a,b}	0.23 ^b	0.42 ^a	0.14	–0.05	0.08	–0.005
Describing feelings (DDF)	0.33 ^a	0.26	0.41 ^a	0.17	0.23	–0.08	0.13	0.16	0.03	–0.16	0.02	–0.05
Externally oriented thinking (EOT)	0.24 ^b	0.04	0.19	0.02	–0.03	0.28 ^b	0.18	0.06	0.02	–0.18	0.13	–0.04

TAS-20—Toronto Alexithymia Scale; ANR—restricting anorexia nervosa; ANP—bingeing/purging anorexia nervosa; BN—bulimia nervosa; BDI—Beck Depression Inventory; DEQ—Depressive Experience Questionnaire.

^a Correlation is significant at the 0.01 level (2-tailed).

^b Correlation is significant at the 0.05 level (2-tailed).

^c Fisher *z* test for comparisons between two independent correlations. Significant difference between ANR and BN at the 0.05 level.

groups. The correlation between the DIF factor and the self-critical personality dimension of the DEQ in restricting anorexic subjects was significantly higher than in bulimic subjects (0.52 vs. 0.27, $z=2.10$, $P=0.035$). In contrast, there was a significant correlation of the dependent personality dimension of the DEQ with the total and DIF factor scores of the TAS only for anorexic subjects. These correlations were not significant in bulimic subjects. Finally, the DDF and the EOT factors were not correlated either with the self-critical or with the dependent personality dimensions of the DEQ in any of the groups (Table 2).

4. Discussion

The present study is the first to assess alexithymia with the revised version of the Toronto Alexithymia Scale in a large sample of DSM-IV eating disorder subtypes taking into account the levels of depression. It is also the first to explore the relationships between alexithymic features and different types of depressive symptomatology.

Our results confirm published data on the importance of alexithymia among patients presenting an eating disorder (Cochrane et al., 1993; Schmidt et al., 1993; Corcos et al., 2000). In our study, eating disorder patients show higher levels of alexithymia than matched controls. Although differences are diminished once depression is taken into account, some differences persist in comparison to controls. Subjects with bulimia show a critical difficulty in identifying their feelings, whereas subjects with restricting anorexia are less able to describe their

emotions. These difficulties seem not to be influenced by the level of depression. Previous studies conducted on smaller samples (Schmidt et al., 1993) and with the old version of the TAS (Sexton et al., 1998) found similar patterns concerning restricting anorexic and bulimic patients. Not all these studies, however, were adjusted for depression (Troop et al., 1995), notwithstanding its well-known impact on alexithymic features (Corcos et al., 2000). This supports the specificity of alexithymia in the psychopathology of eating disorders. As Sexton and colleagues have suggested, for anorexic patients, the reduced ability to express emotions may be related to more stable traits of personality functioning such as schizotypal, avoidant and dependent personality disorders (Bach et al., 1994). In bulimic subjects, the finding that this subtype shows a specific difficulty in identifying feelings is more intriguing given the high self-awareness of these patients. As suggested by Heatherton and Baumeister (1991), bulimic subjects engage in constant and harsh self-scrutiny and self-evaluation in reference to unusually high standards and ideals leading to an awareness of the self as unsatisfactory. However, it is important to note that this self-focus concerns mainly how they appear to others and does not extend to heightened awareness of internal sensations and states which, on the contrary, is defective.

The findings of our study on alexithymic features confirm that people with restricting anorexia and bulimia show similar patterns of restrained emotionality that can be related to their eating disorder. However, they do not explain why these subtypes differ in the strategies they adopt to control their

deficit in affect regulation such as starving or bingeing. As a working hypothesis, we have suggested that the difference could be determined or modulated by other key personality features such as the depressive personality dimensions measured by Blatt's Depressive Experience Questionnaire. Results from our study show that whereas all eating disorder patients experience high levels of self-critical and dependent depressive feelings, bulimic subjects experience a significantly stronger self-critical depression than do restricting anorexic subjects. This type of depression is centered on problems concerning identity with symptoms of low self-esteem, fear of disapproval, feelings of guiltiness and lack of self-confidence (Blatt and Zuroff, 1992). Such a finding is consistent with the well-documented fact that among bulimic patients, depressive comorbidity concerns mainly dysthymic rather than major depressive disorders (Herzog et al., 1992). Moreover, dysphoric affects, self-destroying behaviors such as binge eating, and narcissistic sensitivity are included among the diagnostic criteria of borderline personality disorder, which occurs frequently among bulimic patients (Zanarini et al., 1998). Several authors consider these clinical features to be dynamically related, and bulimic behaviors might represent adaptive strategies to counteract the negative emotions generated by the disturbances in personality organization (Grotstein, 1986; Meyer et al., 2001). This is in line with Hilde Bruch's early work advocating identity and interpersonal disturbances as the core psychopathological features of bulimic patients (Bruch, 1973).

We have observed specific clinical profiles associating alexithymic and depressive personality features in eating disorder subtypes. Dependency is associated with a difficulty in identifying feelings only in anorexic patients. Self-criticism, on the other hand, is associated with a difficulty in identifying feelings in all eating disorder subtypes, although this relationship is particularly strong in patients with restricting anorexia compared with patients with bulimia. The relationship between alexithymia and dependency in anorexic patients is consistent with the clinical picture of these patients who are characterized by an excessive reliance on significant others to obtain a sense of security and self-worth. As suggested by Loas et al. (2000), alexithymic features could favor dependency by reducing insight and self-knowledge.

Relying on others to regulate their confounding emotions, anorexic patients tend to develop symbiotic-like relationships and to inhibit all behaviors that might disrupt such relationships (Bagby et al., 1992). Besides starving and hyperactivity, all the restrictive symptoms that are frequently observed in anorexic patients, such as rigidity, obsessionality or perfectionism, could be thought of as strategies to control a chronic fear of loss or rejection in relationships. While such feelings can also be experienced by bulimic subjects, they do not represent the main problem of these patients, who tend to be much more focused on identity issues and on questions concerning personal inadequacies, faults or other deficiencies (Speranza et al., 2003). The discrepancy observed earlier between the high negative self-awareness of bulimic patients and their unresponsiveness to their internal states is reflected by the association between self-criticism and the difficulty in identifying feelings. We can suppose that this relationship could favor resorting to binge eating as a way to escape from self-awareness as Heatherton and Baumeister (1991) have suggested.

Dependency and self-criticism are common dimensions shared by anorexic and bulimic alexithymic patients. This is not surprising since one of the major problems of eating disorder patients is a constant struggle for autonomy and self-definition, which is supposed to arise from an incomplete development of the separation–individuation process during infancy (Goodsitt, 1983). This process is achieved by consistent interactions with a primary caretaker who is highly responsive to the needs of the child and allows him/her to internalize progressively the ability to accurately recognize, respond to, and regulate internal needs and impulses without contact with the immediate caregiver. Accordingly, the different personality structures of eating disorder patients could reflect developmental arrest at particular phases of this process. The eating disorder symptoms could be an attempt to cope with the needs stemming from this incomplete self-development.

Blatt and Zuroff (1992) consider that anaclitic/dependent patients are more sensitive to the holding function of the therapeutic relation, while introjective/self-critical patients are more sensitive to interpretations. Alexithymic anorexic patients who show a strong anaclitic depression could benefit from a supportive

approach, whereas bulimic patients with a self-critical depression would be suitable for a cognitive-behavioral approach. This point of view is supported in our study by the low scores of bulimic patients on the externally oriented factor of the TAS. The place of alexithymic features and of depressive symptomatology in the development of one rather than another type of eating disorder should be further explored. This is an important issue because that finding specific links might enable us to identify vulnerable subjects and inform us regarding their therapeutic needs. However, although the research literature has defined specific severity criteria for the diagnosis of eating disorders, it is important to recognize that many features of eating disorders, such as body dissatisfaction, dieting, purging or binge-eating, are widespread behaviors in the population. Moreover, there is a continuity between eating disorder subtypes over time. People with anorexia nervosa and bulimia nervosa move between diagnostic categories, although the tendency is more often from an abstaining mode toward binge-eating and purging than the opposite (Garner et al., 1993). Probably, a dimensional conception of eating symptomatology along a restraint–release continuum would be more relevant than a categorical one in explaining subsyndromes and mixed clinical disorders (Williamson et al., 2002). Just as some depressive patients are considered unipolar until they suddenly shift to a bipolar depression, some anorexic patients have the potential to develop bulimic symptomatology. From our study, we can suggest that people with restricting anorexia who show high levels of self-critical depressive symptoms and difficulty in identifying feelings could be at risk of expressing bulimic features.

Some limitations of our study must be acknowledged. The absence of a psychiatric control group (whether with depression or with another addictive disorder) limits the specificity of this study. However, results have been compared to a normal group with statistical controls for depression, which could be considered as a strong confounding factor in this kind of patient. Moreover, the comparisons and correlations between subtypes of eating disorders can be considered as a strategy to approach the diagnostic specificity of alexithymic and depressive personality dimensions. The results of our study are based on statistical correlations between self-reported scores in

a cross-sectional design study and do not allow us to define cause–effect relationships. Moreover, it should be remembered that whereas the self-critical and dependent personality dimensions are important features in eating disorders, they correspond to phenomena that occur on a continuum from normality to pathology and are not analogous to clinical diagnoses of depression (Blatt et al., 1995). It can be noted, however, that working on psychopathological dimensions seems quite fruitful in eating disorders in defining specific clinical profiles and guiding therapeutic interventions.

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