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Do Patients with Somatoform Disorders Present with Illusory Mental Health?

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Abstract

Background: Patients with somatoform disorders tend to report somatic complaints, while denying the influence of psychological factors: a pattern described as "illusory mental health". The present study investigated if somatoform patients present themselves in this way. In this context we investigated features of personality organization), self-reported personality traits, symptomatology, and coping.

Methods: A cross-sectional design was applied to 79 patients with somatoform disorders and 114 psychiatric controls. We compared the two groups regarding prevalence of the several profiles of personality organization, self-reported symptoms, coping and personality traits.

Results: Compared to controls, the narcissistic subtype of the borderline personality organization was 2.5 times more prevalent among patients with somatoform disorders. Unexpectedly, the psychotic personality organization was also more prevalent among patients with somatoform disorders. Furthermore, patients with somatoform disorders rated themselves as more socially competent, with higher levels of self-esteem and greater ability to cope with problems. They also reported less anger and less depressive symptoms. However, they seem to recognize feelings of anxiety.

Conclusion: Patients with somatoform disorders show a favourable self-presentation and in line with this a relatively high prevalence of the narcissistic personality organization. The favourable self-presentation in patients with somatoform disorders may be related to defensive denial, i.e. illusory mental health. The utility of self-reports may be limited in these patients, given their favourable self-presentation on these instruments. This has also implications for the use of self-reports in the context of assessing treatment outcome among patients with somatoform disorders, for example in the context of routine outcome monitoring. Somatization in patients with somatoform disorders might have an integrating preserving function. Future research should investigate the role of personality organization on treatment outcome for patients with somatoform disorders. Future research should also include observer ratings, complementary to self-reports, given the favourable self-presentation of SFD-patients.

Keywords: Somatoform disorders; Psychosomatics; Somatization; Personality; Symptomatology; Narcissism; Self-reports

Abbreviations: SFD: Somatoform Disorder, PO: Personality Organization, NPO: Neurotic Personality Organization; BPO: Borderline Personality Organization; PPO: Psychotic Personality Disorder

Introduction

Somatoform disorders (SFD) are a class of mental disorders that share the presentation of persistent physical symptoms, suggesting the presence of a medical condition, for which however there is no adequate medical explanation [1]. The fourth edition of the Diagnostic and Statistical Manual of Mental Disorders [1] distinguishes the following SFD's: Somatization Disorder, Undifferentiated Somatoform Disorder, Conversion Disorder, Pain Disorder, Hypochondriasis, Body Dysmorphic Disorder and Somatoform Disorder Not Otherwise Specified.

Patients suffering from SFD tend to extensively complain about physical symptoms and tend to attribute these to a medical condition, while denying that psychosocial factors may play a role. Associated with this, SFD-patients frequently seek medical attention resulting in disproportionately elevated rates of medical care utilization [2-4], and total health care costs [3].

In this context, Shedler et al. [5] introduced the concept of the "illusion of mental health" as a characteristic of patients who use defensive denial and related to this tend to present themselves as mentally healthy on self-reports. They state that a distinction should be made between patients who present with mental health on self-reports but who are judged distressed by clinicians and a group of patients who present themselves as mentally healthy in correspondence with the clinicians' judgements (genuine health). People with illusory mental health are characterized by a need to see themselves as well adjusted, despite underlying vulnerability. Probably, they maintain their belief in good adjustment by disavowing much of their emotional life, with little awareness of their needs, wishes, and feelings. Shedler and colleagues showed that the mental health reported by subjects from a university community who were judged distressed by clinicians, was in fact illusory: their verbal responses reflected the operation of psychological defence processes, whereas, at the same time, these persons showed high levels of physiological reactivity in response to stress. They concluded that illusory mental health might even be a risk factor for physical illness. Cousineau and Shedler [6] found that clinically verified illness was prospectively predicted by an implicit measure

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of psychological distress, whereas a range of widely used self-reports (including measures of perceived stress, mood states, life events, and general mental health) was not associated with health outcome. Subic-Wrana et al. [7] have shown that especially those SFD-patients who showed low levels of emotional awareness (assessed with an implicit measure), rated themselves as having low impairments on all self-reports applied in their study. Patients with pure somatoform disorder reported less psychopathology on a self-report, compared to patients with pure mood disorder and anxiety disorder [8]. Also Moene et al. [9] found that patients with Conversion Disorder reported relatively low scores on a self-report symptom questionnaire.

In line with Lane [10], Kano and Fukudo [11] found evidence by reviewing brain imaging studies, that people who have deficits in the cognitive experience of emotions only experience rudimentary forms of emotional experience (high arousal of bodily sensations) and this may lead to disadaptive behaviours.

Several psychiatric disorders are associated with a tendency to somatization [12-16], and, inversely, mood and anxiety disorders are the most common co-morbid psychiatric disorders among patients with SFD [12-16]. There also is evidence that SFDs are linked to personality pathology, including DSM-IV personality disorders [17-19].

In that context, the low scores of SFD patients on self-reports for psychopathology are remarkable and require the search for an explanation.

Several studies have shown that a self-serving bias in self-reports is associated with narcissistic personality characteristics and dynamics [20-24]. Results of self-reports of these patients often deviate from observer ratings [21,24]. This self-enhancement bias on self-reports shown by narcissistic persons may be the result of a tendency to cover an in fact fragile self-esteem [22]. The narcissistic self-enhancement on self-reports is therefore suggested to have a function in the maintenance of an unrealistically high level of self-esteem [23].

Compared to patients with a depressive disorder and patients with an anxiety disorder, somatoform patients reported lower scores on dimensions of self-reported personality pathology [25], such as cognitive distortion, identity problems, affective lability, suspiciousness, insecure attachment and narcissism. Self-reported personality traits did not predict treatment outcome beyond initial symptoms in a sample of psychosomatic inpatients in one study [26], but did in another [27]. Narcissistic characteristics were found to be prospective for therapy outcome in SFD-patients [28]. Based on these considerations, it seems interesting to investigate the role of structural personality characteristics that needs to be distinguished from the purely descriptive classification approach of DSM–IV. To the best of our knowledge, no study addressed the association between SFD and structural personality pathology.

The structural-dynamic approach of Kernberg [29] to personality pathology uses concepts as identity integration and complexity of self-object representations. The concept of Personality Organization (PO) is central to this perspective. PO is a relative stable structure that consists of various inner representations of early relationships of the self with significant others, including the affective quality of these relationships. Kernberg describes three levels of PO, i.e., the neurotic, the borderline and the psychotic PO (NPO, BPO, and PPO respectively). These levels of PO represent quantitative differences in terms of increasing severity of personality dysfunction, but also qualitative differences in terms of type and quality of defenses, self- and object representations, and underlying conflicts. Level of PO is assessed by a specific combination of ego functions: quality of defenses (primitive, centring around splitting in BPO and PPO, or mature, centring around repression, in NPO), level of identity integration (good in NPO and poor in BPO and PPO), and capacity for reality testing (intact in NPO, transiently compromised in BPO, and absent in PPO). Within the BPO, several types of patients are distinguished based on severity [29,30]. One special type of BPO patients, of interest for the present study, is the narcissistic BPO patient. In contrast to the non-narcissistic BPO patient, splitting affects mainly the perception of others and not so much the perception of the self: others are perceived as either ideal, or as worthless. However, the self is perceived as relatively stable and endowed with socially desirable characteristics.

Eurelings-Bontekoe et al. [31] have developed a new approach to the assessment of structural personality pathology, based on a theory-driven profile interpretation of the Dutch Short Form of the Minnesota Multiphasic Personality Inventory (MMPI) [32] (DSFM) [33]. This model uses Kernberg's [29] tripartite model of PO as the theoretical frame of reference, using concepts such as integrative capacity, impulse control, and anxiety tolerance. The DSFM [33] assesses five personality dimensions: Negativism, Somatization, Shyness, Severe psychopathology, and Extraversion. As has been described elsewhere [31,34-38], the theory-driven profile interpretation of scores on the DSFM is based on the notion that raw scores on the dimensions of the DSFM should be combined into profiles based on theoretical considerations concerning structural personality features and organization. These a priori defined profiles are subsequently interpreted by using Kernberg's tripartite model of personality pathology [29,30].

Hypotheses about structural diagnoses are derived from specific theory driven combinations of raw scores on DSFM subscales Negativism (Negative Affectivity), Psychopathology (Psychoticism) and Shyness (Constraint) [31]. The DSFM Negativism subscale is a measure of the level of subjectively experienced negative emotionality such as inner tension and subjectively experienced anger [31]. The subscale Shyness is assumed to reflect an individual's inhibitory capacity or impulse control. A high level of Shyness renders an individual overly adapted, controlled, prudent, inhibited and constrained. A low level of Shyness may indicate a tendency to impulsivity. The subscale Psychoticism is assumed to measure severe psychopathology (paranoid anxiety, perceptual aberrations and magical ideation). This scale is assumed to reflect anxiety tolerance or the propensity to paranoid and dissociative reactions during periods of high emotional stress [31]. In absence of emotional stress, this propensity does not necessarily become manifest. On the basis of theory driven combinations of these three dimensions, patients are categorized into the three levels of PO, according to Kernberg's theory [29,31,39]: the NPO, (different types of) BPO and the PPO. Within the level of BPO different subtypes are distinguished. For this study, one of the specified subtypes within the BPO, the narcissistic subtype, is especially of relevance. Within the theory driven profile approach, this subtype is defined on the basis of low scores on both Shyness and Severe Psychopathology because patients with narcissistic dynamics tend to deny vulnerabilities on self-reports [24], related to their inability to view themselves realistically [40] and to present with illusory mental health [5]. These patients often function well on the surface, especially in distant relationships, but they show "eager to please" characteristics [35]. Beneath this strong surface, there is identity diffusion, anger, and a sense of entitlement [37]. The vulnerable sense of self depends on external confirmation. In the absence thereof, feelings of emptiness and "yearning" emerge and a strong need for perfection and control of the object. In addition, they tend to externalize [36].

The subscales Somatization and Extraversion are not used for structural diagnosis, although these two scales are used in the profile interpretation of the individual patient to refine the clinical picture. The DSFM subscale Somatization is considered to be an important affect regulator, independent of structural pathology. The subscale Extraversion is considered to be a temperamental trait and not a marker for structural psychopathology [31]. This is in agreement with the notion that the introversion/extraversion dimension is a temperamental disposition influencing the type of personality disorder (internalizing versus externalizing) but not the severity of structural personality pathology [39]. For a more detailed description of the rationale behind the assessment method, and the interpretation of the several DSFM profiles see [34,35].

Aims of the Study and Hypothesis

The main aim of the study is to explore whether patients with severe somatoform disorders show, as compared with psychiatric controls, a tendency to present themselves favourably on various self-reports measures assessing personality, symptomatology and coping. In order to do so we will first explore the prevalence of the several DSFM personality profiles and compare the prevalence with that found among other psychiatric patients. Second, we will compare both groups regarding personality traits, severity of psychological complaints, somatisation and coping dimensions.

On the basis of the presence of "illusory mental health" among SFD-patients as described above, we hypothesize that:

a) The prevalence of the DSFM narcissistic BPO profile will be higher among SFD-patients than among other psychiatric patients.

b) SFD-patients will present themselves more mentally 'healthy' than psychiatric controls on other self-reports assessing personality characteristics, psychiatric symptoms and coping, whereas patients with SFD will score higher on the DSFM subscale Somatization than the psychiatric controls."

Material and Methods

Participants

All participating patients were in treatment from 2009 to 2011 at Yulius Mental Health Care in Gorinchem, the Netherlands. The 79 SFD-patients were treated in a specialized centre for Medically Unexplained Medical Symptoms. The majority of these patients (N=60, 75.9%) were hospitalized for clinical psychotherapy, the remaining patients received ambulatory treatment. Psychological assessment with various self-report questionnaires was part of the routine diagnostic procedure. The control group consisted of 114 patients who received ambulatory treatment for various psychiatric disorders, including Mood disorders, Anxiety disorders, Attention deficit hyperactivity disorder, Dissociative disorders, Eating disorders and Psychotic disorders. All psychiatric patients were included, except patients with a co-morbid SFD-disorder. In the control group, the assessment was performed for a specific reason (for example non-response to treatment). The SFD-group consisted of 53 women (67.1%) and 26 men (32.9%), with a mean age of 41.05 (*SD*=10.61, range 20-62). The control group consisted of sixty women (52.6%) and 54 men (47.4%) with a mean age of 33.24 (*SD*=9.38, range 21-60). DSM-IV classifications on the five axes were assessed by trained psychiatrists or clinical psychologists using clinical interviews and expert consensus, consequently. If no consensus was reached, the patients received a second opinion. See Table 1 for axis I diagnoses, co-morbidity on axis I and axis II for the SFD-patients and control group. Within the SFD-group the most common comorbid axis 1 disorders were other somatoform disorders (N=23, 27.4%), anxiety disorders (N=19, 22.6%), mood disorders (N=15, 17.9%), posttraumatic stress disorder (N=12, 14.3%) and dissociative disorders (N=12, 14.3%).

Measures

Structural personality pathology was assessed using theory driven profiles of the Dutch Short Form of the MMPI (DSFM) [26] that consists of 83 MMPI items, measuring five personality dimensions: Negativism (22 items), Somatization (20 items), Shyness (15 items), Severe Psychopathology (13 items) and Extraversion (13 items). Items are answered with either true (2) or false (0). Twelve items have reversed scoring. Studies have shown the inventory to be both reliable and valid [33]. Moreover the temporal stability of the instrument is high, rendering it appropriate for structural personality assessment [28]. In the DSFM profile interpretation, raw scores are compared with normative data for psychiatric patients. Using the categorization scheme described by Eurelings-Bontekoe et al. [31] each patient was classified as having a PPO profile, a narcissistic BPO profile, one of the other BPO profiles, or a NPO profile. These groups are mutually exclusive. Several studies have provided evidence for the validity of the DSFM to capture features of PO [31,34-38]. In the present study, internal consistency of the several subscales ranged from 0.69 (subscale Severe Psychopathology) to 0.90 (subscale Shyness).

Personality traits were assessed with the revised version of the Dutch Personality Questionnaire (NPV-2) [41,42]. The NPV-2 is a revised version of the well validated NPV [43]. The correlations

Diagnosis SFD Group	N (%)	Diagnoses control group	N (%)
Somatization disorder	4 (5.1%)	Mood disorder	31 (27.2%)
Undifferentiated somatoform disorder	19 (24.1%)	Anxiety disorder	38 (33.3%)
Conversion disorder	34 (43%)	Psychotic disorder	3 (2.6%)
Somatoform disorder NOS	12 (15.2%)	Dissociative disorder	4 (3.5%)
		Eating disorder	3 (2.6%)
		Attention deficit hyperactivity disorder	8 (7%)
		Autism	1 (0.9%)
Missing	1 (1.3%)	Other axis I diagnosis Missing	19 (16.7%) 6 (5.3%)
Total	79 (100%)	Total	114 (100%)
Axis I co-morbidity SFD	48 (60.8%)		30 (26.9%)
Axis II co-morbidity	40 (51%)		41 (38%)

Table 1: Axis I diagnoses, axis I and II co-morbidity for SFD-patients and control group.

between corresponding scales of the NPV-2 and NPV are high, ranging from 0.65 (Self-centeredness) to 0.94 (Social inadequacy) [41]. The NPV-2 is a 140 item self-assessment questionnaire that is widely being used in Dutch mental health care. Items can be scored with true (score 2), a question mark (score 1) or false (score 0). Twenty-three items have reversed scoring. The NPV-2 consists of seven scales of twenty items each: Insuffiency; Social Inadequacy; Rigidity; Resentment; Self-centeredness; Dominance and Self-Esteem. Internal consistency for the subscales ranged from 0.65 for the subscale Self-centeredness to 0.86 for the subscale Inadequacy [41]. In the present study internal consistency (Cronbach's α) ranged from 0.68 (Self-centeredness) to 0.84 (Resentment). The test-retest reliability was found to be very good over a short time interval (two weeks), ranging from 0.86 for Self-esteem to 0.96 for Rigidity. However, over a longer period of time (two years or more), test-retest reliability showed more fluctuation, ranging from 0.43 for Self-centeredness to 0.74 for Rigidity [42].

Coping was assessed using the Utrecht Coping List (UCL) [44], a 47 item self-report questionnaire, assessing a number of frequently used coping strategies. Items are scored on a 4-point Likert scale, with scores varying from seldom/never (1) to very often (4). The list consists of seven scales: Active problem solving (7 items), Palliative reaction (8 items), Avoidance (8 items), Seeking social support (6 items), Passive reaction (7 items), Expression of emotions (3 items) and Reassuring thoughts (5 items). Internal consistency for several groups (for instance students, heart patients, cancer patients) ranged from 0.55 (Expression of emotions) to 0.89 (Seeking social support) [37]. In the present study, the Cronbach alpha coefficients ranged from 0.67 (Expression of emotions) to 0.89 (Seeking social support). The scores on the scales proved to be relatively stable over time and the observed coping styles can therefore be considered as an aspect of personality [44].

Symptomatology as assessed using the Symptom Check List (SCL-90) [45] which is a widely used questionnaire to assess general distress. The scale contains 90 items, divided over nine subscales: Anxiety (10 items), Agoraphobia (7 items), Depression (16 items), Somatization (12 items), Inadequacy (9 items), Interpersonal sensitivity (18 items), Hostility (6 items), Sleeping problems (3 items) and Severe psychopathology (9 items). The Dutch version of the SCL-90 has been extensively validated [45]. In the present study, internal consistency of the subscales ranged from 0.76 (Severe psychopathology) to 0.93 (Interpersonal sensitivity).

Design and procedure

This study was reviewed by the scientific committee of Yulius. The outcome variables (prevalence of the DSFM profiles and scores on the various self-reports) of SFD-patients were compared with results among patients from a general psychiatric population. The study design was cross-sectional with a control group.

Statistical analysis

First, differences between the group of SFD-patients and the psychiatric control group regarding age were tested using t-tests for independent samples. Differences between groups regarding gender, and the absence or presence of axis I and axis II co-morbidity were tested using chi-square (χ^2) statistics. In addition, the association between age and DSFM profiles was investigated with a one-way Analysis of Variance (ANOVA). The association between DSFM profiles and gender, and presence or absence co-morbidity with axis I or axis II disorders was tested using chi-square (χ^2) statistics. Differences between the two groups in prevalence of the various DSFM profiles were tested using Chi square (χ^2) statistics. Finally, MANCOVAs were conducted to study the differences between SFD-patients and the controls, regarding personality traits, symptom severity and coping.

Effect sizes of ANOVA will be expressed as partial eta squared ($\eta\rho^2$); Effect sizes of chi-square statistics in Cramer's V. According to conventional criteria [46] a $\eta\rho^2$ of 0.01 is small; 0.06 moderate; 0.14 large. According to conventional criteria [47] a Cramer's V under 0.10 is negligible, a V 0.10 < 0.20 is weak, a V 0.20 < 0.40 is moderate, a V 0.40 < 0.60 is relatively strong, a V 0.60 < 0.80 is strong and, finally, a V 0.80 < 1.00 is very strong. Cohen's *d*'s were calculated as an Effect Size (ES) measure of pair wise differences between groups [39]. According to conventional criteria, $d \approx 0.20$ is considered a small ES; $d \approx 0.50$ a medium ES; and $d \approx 0.80$ a large ES.

Results

Patients in the SFD-group were significantly older ($M = 41.05$, $SD = 10.61$) than patients in the control group ($M = 33.24$, $SD = 9.38$): t (191, 193) = 5.39, $p < 0.001$). The presence of Axis I co-morbidity was unequally distributed across the SFD-group and the control group ($\chi^2(1, 183) = 5.81$, $p < 0.05$; Cramer's $V = 0.18$), the prevalence of axis I co-morbidity being higher in the SFD-group (60,8%) than in the control group (26,9%). However, presence or absence of an axis II co-morbid disorder was equally distributed across both groups: $\chi^2(1, 186) = 2.21$, ns. Gender was unequally distributed across the two groups, females being overrepresented in the SFD-group ($\chi^2(1, 193) = 4.02$, $p < 0.05$; Cramer's $V = 0.14$).

Both axis I ($\chi^2(3, 175) = 2.51$, ns) and axis II co-morbidity ($\chi^2(1, 186) = 4.02$, ns) were equally distributed across patients with the several DSFM profiles. Finally, patients with the several DSFM profiles did not significantly differ from each other regarding age ($F(3, 180) = 1.85$, ns). On the basis of these results, age, gender and axis I co-morbidity were entered as covariates in further analyses.

Prevalence of the several DSFM profiles among both groups

SFD-patients and controls significantly differed regarding frequency of the various DSFM profiles ($\chi^2(3, 184) = 20.25$, $p < 0.001$; Cramer's $V = 0.33$). As expected, the prevalence of the narcissistic subtype of the BPO was 2.5 times higher among SFD-patients than among psychiatric controls. Moreover, the prevalence of the PPO profile was approximately twice as high among SFD-patients as among psychiatric controls. On the other hand, compared to SFD-patients, the control patients showed a twice as high prevalence of the NPO profile and of the other BPO profiles. Results are presented in Table 2.

A MANCOVA with group as the independent variable, outcomes on the single DSFM-subscales as dependent variables, showed a

		Levels of personality organization (PO)				
		NPO	Narcissistic BPO	Other BPO subtypes	PPO	Total
SFD-patients	N	12	35	23	7	77
	%	15.6%	45.5%	29.9%	9.1%	100%
Psychiatric Controls	N	29	19	54	5	107
	%	27.1%	17.8%	50.5%	4.7%	100%
Total	N	41	54	77	12	184
	%	22.3%	29.3%	41.8%	6.5%	100%

NPO=Neurotic Personality Organization; BPO=Borderline Personality Organization; PPO=Psychotic Personality Organization

Table 2: Frequencies of levels of personality organization in SFD-patients and general psychiatric controls.

significant and large overall group effect ($F(5,172) = 9.31$; $p < 0.001$; $\eta\rho^2 = 0.22$). SFD-patients scored significant lower than psychiatric controls on Negativism ($F(1,172) = 16.35$; $p < 0.001$; $\eta\rho^2 = 0.09$) and Shyness ($F(1,172) = 12.57$; $p < 0.01$; $\eta\rho^2 = 0.07$), and significantly higher on Somatization ($F(1,172) = 7.20$; $p < 0.01$; $\eta\rho^2$=0.04). The two groups did not differ with respect to mean scores on Extraversion ($F(1,172) = 0.26$; ns) and Severe Psychopathology ($F(1,172) = 0.99$; ns). Mean scores, standard deviations and Effect Sizes (ES) of group differences in terms of Cohen's *d* are presented in Table 3.

Self-reported personality traits, self-reported symptomatology and coping

A MANCOVA with group membership as the independent variable, and scores on the NPV-2 subscales as the dependent variables, showed a significant and large overall group effect ($F(7,143) = 7.74$; $p < 0.001$; $\eta\rho^2 = 0.29$). Compared to the controls, SFD-patients scored significantly higher on the subscale Self-esteem ($F(1,143) = 5.93$; $p < 0.05$; $\eta\rho^2 = 0.04$), and significantly lower on the subscales Social inadequacy ($F(1,143) = 14.65$; $p < 0.001$; $\eta\rho^2 = 0.10$), Resentment ($F(1,143) = 6.90$; $p < 0.05$; $\eta\rho^2 = 0.05$), and Self-centeredness ($F(1,143) = 37.79$; $p < 0.001$; $\eta\rho^2 = 0.21$). The two groups did not differ with respect to mean scores on Insufficiency ($F(1,143) = 2.13$; ns), Rigidity ($F(1,143) = 0.92$; ns) and Dominance ($F(1,143) = 1.59$; ns). See Table 3 for mean scores, standard deviations and ES of group differences in terms of Cohen's *d*.

		SFD		Controls			
		M	SD	M	SD	Sign.	Cohen's D
DSFM	Negativism	19.05	8.57	24.10	7.25	***	0.64
	Somatization	20.78	8.62	15.92	8.93	**	0.56
	Shyness	11.85	9.05	17.32	9.11	***	0.61
	Psychopathology	3.64	4.05	4.34	4.09		0.17
	Extraversion	12.74	5.46	12.70	6.68		0.01
NPV	Insufficiency	25.73	10.19	27.56	7.45		0.21
	Social Inadequacy	16.97	10.63	22.75	6.76	***	0.67
	Rigidity	27.89	8.10	25.43	7.84		0.31
	Resentment	15.00	10.38	19.35	8.52	**	0.47
	Self-centeredness	6.68	3.65	12.69	5.35	***	1.29
	Dominance	19.11	8.87	18.08	9.86		0.11
	Self-Esteem	22.95	8.52	19.83	7.21	*	0.40
SCL-90	Anxiety	22.07	9.41	22.03	7.95		0.00
	Agoraphobia	12.01	6.13	11.90	5.20		0.02
	Depression	37.01	14.04	41.99	14.26	*	0.35
	Somatization	29.85	10.39	23.96	8.46	**	0.64
	Inadequacy	22.83	8.31	23.11	7.26		0.04
	Interpersonal sensitivity	32.86	13.24	41.61	13.65	***	0.65
	Hostility	8.62	2.96	10.57	3.83	**	0.56
	Sleeping problems	7.89	3.64	7.13	3.30		0.22
	Severe psychopathology	15.61	6.51	17.43	5.22	*	0.32
	Overall	179.77	59.43	191.95	56.92		0.21
UCL	Active coping	17.71	4.27	15.75	3.63	*	0.51
	Palliative reaction	18.62	3.66	18.69	3.89		0.02
	Avoidance	16.64	4.13	17.93	3.63		0.34
	Seeking Social Support	12.60	4.38	12.91	4.09		0.07
	Depressive copingstyle	14.21	3.79	16.98	3.63	***	0.76
	Expression of emotions	5.64	1.85	6.09	2.05		0.23
	Reassuring thoughts	12.60	2.94	10.53	2.53	***	0.78

MANCOVA = Multivariate analysis of covariance *** $p < 0.001$, ** $p < 0.01$, *$p < 0.05$

Table 3: Results of MANCOVA, comparing SFD-patients with controls with respect to mean scores (M) and standard deviations (SD) on personality characteristics (DSFM, NPV), reported symptoms (SCL-90) and coping (UCL). ES of group differences are expressed as Cohen's *d*.

A MANCOVA with group as the fixed factor, and self-reported psychiatric symptoms as measured by the SCL-90 as dependent variables, revealed a significant and large overall group effect ($F(10,175) = 6.65$; $p < 0.001$; $\eta\rho^2 = 0.29$). Compared to controls, SFD-patients scored significantly lower on the subscales Depression ($F(1,175) = 4.33$; $p < 0.05$; $\eta\rho^2 = 0.03$), Interpersonal Sensitivity ($F(1, 175) = 14.91$; $p < 0.001$; $\eta\rho^2 = 0.08$), Hostility ($F(1,175) = 13.48$; $p < 0.001$; $\eta\rho^2 = 0.07$) and Severe Psychopathology ($F(1,175) = 4.52$; $p < 0.05$; $\eta\rho^2 = 0.03$), and higher on Somatization ($F(1,175) = 10.44$; $p < 0.01$; $\eta\rho^2 = 0.06$). The groups did not differ with respect to mean scores on Anxiety ($F(1, 175) = 0.05$; ns), Agoraphobia ($F(1,175) = 0.01$, ns), Inadequacy ($F(1,175) = 0.28$; ns), Sleeping problems ($F(1,125) = 1.26$, ns) and Overall Score ($F(1,175) = 2.18$; ns). Mean scores and standard deviations are presented in Table 3. ES of group differences are expressed in Cohen's *d*.

A MANCOVA with group as the independent variable, and scores on the coping subscales of the UCL as dependent variables, revealed a significant and large overall group effect ($F(7,148) = 4.15$; $p < 0.001$; $\eta\rho^2 = 0.18$). Compared to the control group, SFD-patients scored significantly higher on the subscale active coping ($F(1,148) = 6.30$; $p<0.05$; $\eta\rho^2 = 0.04$) and reassuring thoughts ($F(1,148) = 16.05$; $p < 0.001$; $\eta\rho^2 = 0.10$) and significantly lower on passive coping ($F(1,148) = 16.52$; $p < 0.001$; $\eta\rho^2 = 0.10$). The groups did not differ with respect to mean scores on Palliative reaction ($F(1,148) = 0.19$; ns), Avoidance ($F(1,148) = 2.55$; ns), Social support ($F(1,148) = 0.17$; ns) and Expression of emotions ($F(1,148) = 2.06$; ns). See Table 3 for mean scores and standard deviations. ES of group differences are expressed in Cohen's *d*.

Discussion

In line with study hypothesis the prevalence of the DSFM narcissistic subtype of the BPO was 2.5 times higher among SFD-patients compared to the general psychiatric control group. In addition to the predicted higher prevalence of the narcissistic subtype of the BPO, we also found the PPO profile to be approximately twice more prevalent among SFD-patients than among a sample of general psychiatric patients. Although the absolute number of patients with this type of PO is relatively small in this study, it suggests that there might be a sub-group of SFD-patients with a high level of structural vulnerability and low anxiety tolerance. In this subgroup of vulnerable SFD-patients with PPO, somatization may have an integration preserving function, as had been suggested [48] and has recently been found [49].

In line with the relatively high prevalence of the DSFM narcissistic profile, patients with SFD as compared to psychiatric controls, particularly rate themselves as more (socially) competent and more sociable, agreeable and empathic, as expressed in their higher level of self-esteem and active coping, lower levels of shyness, social inadequacy, resentment, self-centeredness, interpersonal sensitivity, negativism and hostility. This is in line with previous results [25].

In addition they particularly report less depressive feelings, as expressed in their lower scores on depression and depressive coping.

The low scores on the depression subscale of the SCL-90 and on the UCL-subscale depressive coping of the SFD-patients, compared to the psychiatric controls, are notable, since it is well known that among SFD-patients mood and anxiety disorders are often found as co-morbid disorders [12-16]. The low self-reported levels of depressive symptoms and anger may be related to high levels of alexithymia [50,51], over-regulation of affect [52], and inhibitory self-regulation [53] that were found among SFD-patients and also to negative symptoms of dissociation, and in line with diminished psychological mindedness [7,54,55].

They however do seem to report feelings of anxiety to a comparable extent as psychiatric controls do, given the absence of group differences regarding scores on DSFM severe psychopathology, that assesses anxiety tolerance, the anxiety subscales of the SCL-90, and avoidant coping. In other words, in contrast to feelings of depression and anger, these patients seem to be able to recognize feelings of anxiety. These results both correspond with and contradict previous findings [25]. These authors also found that patients with a pure somatoform disorder reported less depressive symptoms, interpersonal sensitivity and hostility on a self-report questionnaire, compared to patients with pure depressive and pure anxiety disorders. However, in contrast to the present study, somatoform patients also reported less symptoms related to anxiety tolerance and anxiety [25]. The present study however suggests that somatoform patients do report anxiety to a similar extent as other psychiatric patients do. Their anxiety may be related to an anxious preoccupation with illness symptoms [11].

The relation between anxiety and a lack of emotional attribution is suggested to be bidirectional in SFD-patients [55]: anxiety may compromise one's ability to make emotional attributions, and the limited capacity to attribute physical sensations emotionally could lead to increased anxiety. Unexpectedly, SFD-patients did not rate themselves as less rigid, less labile and more dominant than psychiatric controls. Moreover, they did not report less avoidant and palliative coping, more expression of emotions and a higher level of seeking social support. Taken together, compared to psychiatric patients in general, SFD-patients seem to underreport in particular feelings of depression, social incompetence and hostility/anger. As expected, SFD-patients reported higher levels of somatic complaints than psychiatric controls. The finding that SFD-patients tend to score relatively high on the DSFM subscale Somatization but low on the DSFM subscale Negativism (compared to psychiatric controls) suggests that the peripheral somatic components of negative emotions are experienced to a greater extent than the psychological components thereof, as has been previously described [10,11]. This may also reflect deficits in SFD-patients in 'embodied mentalization', i.e. inability to reflect on bodily states and their translation into and impact on feelings, beliefs and desires [11,56,57]. This may not only lead to hypersensitivity to bodily sensations, it might also lead to unhealthy behaviours [11].

The relatively high prevalence of the narcissistic BPO profile and the results on the other self-reports among SFD patients are remarkable given the fact that about 75% of the SFD-patients were treated clinically, because former ambulatory treatment had been ineffective, whereas the control group consisted of only ambulatory patients. Furthermore, 60.8% of the SFD-group had comorbid axis I pathology versus 26.9% of the controls. This implies that clinicians judged the SFD-patients as having more mental illnesses that warrant clinical treatment.

The relatively high prevalence of the DSFM narcissistic profile among this otherwise severely psychiatrically disturbed group of patients suggests that this profile indeed measures a narcissistic denial of vulnerability. These results are in line previous findings that patients with the narcissistic BPO profile received multiple axis I diagnoses at T1, especially mood, adjustment and anxiety disorder diagnoses, despite their low level of self-reported complaints and their high level of self-reported well-being [38].

These findings are also in line with Eurelings and colleagues [37], who studied the association between DSFM profiles and Young's cognitive model of personality pathology in a sample of 117 patients that were referred to Schema Focused Therapy for severe personality pathology. The personality pathology of narcissistic BPO patients was similar to that of the other borderline organized patients, characterized by maladaptive cognitive schema´s and modes (i.e. moment-to-moment emotional states and coping responses) pertaining to grandiosity, impaired self-regulation, combined with ideas of mastery and regressive longings for warmth and dependency. Results of the present study suggest that somewhat less than half of the SFD-patients suffer from this type of structural personality pathology. The favourable self-presentation on self-reports based on the suggested narcissistic denial is not typical of somatoform patients, but is more frequently present among somatoform patients.

The higher level of self-reported social competence and sociability found in the present study contrasts with previous findings of Koelen et al. [48], who studied social cognition among SFD-patients in an indirect way using the Social Cognition and Object Relations Scale (SCORS) [58,59]. This scale assesses cognitive (complexity of inner representations of self and others; understanding of social causality) and affective aspects of social cognition (emotional investment in relationships and affect tone of relationships). SFD-patients, compared to psychiatric controls, were characterized by a combination of a relatively high level of affect tone in relationships, comparable to that of normals, implying positive expectations of social relationships, and at the same time a lower level of emotional investment in relationships [48]. The low level of indirectly assessed emotional investment in SFD contrasts with the very low level of self-reported Self-centeredness among SFD-patients and suggest that patients with SFD are self-preoccupied and have difficulties differentiating between the needs and desires of self and others [35] but may present with "eager to please"-characteristics, i.e. a strong need for self-confirmation by meeting the needs of others. The need to perceive oneself as helpful to others and not as an angry individual has been called a self-sacrificing defense style [60] or communal narcissism [61], and these personality characteristics may be ill-suited to coping with disabling disease and may lead to impaired emotion regulation [60].

Combining the self-report results of the present study with results of [48], who used an indirect measure of sociability, suggests that SFD-patients are aware of their socially oriented behaviour, but that there is low awareness of their underlying tendency to detachment in social relationships. The discrepancy between overt sociability and covert detachment found among SFD-patients may seriously complicate the establishment of a good therapeutic relationship with these patients.

Limitations

The results of the present study need to be viewed in the context of several limitations. The results of the present study need to be viewed in the context of several limitations. First, the number of subject in this study is relatively small. Second, SFD-patients were considered as a homogeneous group, thereby ignoring heterogeneity within the DSM-IV category for somatoform disorders. The SFD-patients in the present study were all patients with severe somatoform disorders, diagnosed

with a conversion disorder, somatization disorder, undifferentiated somatoform disorder or somatoform disorders not otherwise specified. Patients were not classified with hypochondriasis and body dismorphic disorder, disorders that are considered to be more related to anxiety [62]. Although no differences were found between subgroups of somatoform patients with regard to levels of emotional awareness [7], future research needs to take heterogeneity of SFD patients into account. However, the number of respondents with SFD in the present study was too small for this purpose. Third, although patients in both groups received psychotherapeutic treatment, the groups were not comparable regarding treatment intensity, the SFD group receiving clinical treatment whereas the controls received ambulatory treatment. Fourth, the cross-sectional nature of the study implies that results do not allow for causal inferences. Hence, results must be viewed as a source of hypotheses. Future research could investigate the predictive power of DSFM profiles with regard to course, prognosis, and treatment response for SFD-patients with different levels of PO, comparable to previous studies [35,38] among patients with axis 1 disorders and different levels of PO. A final limitation is that we were unable to evaluate the reliability of the psychiatric diagnoses, as assessed in routine clinical practice.

Conclusions

The results of the present study are in line with the increasing awareness of the fact that the usefulness of self-reports depends on the willingness or ability of self-disclosure [63], and that many psychological processes are implicit rather than explicit and are not accessible via self-report [6,64]. Concerning SFD patients, Subic-Wrana et al. [65] showed that among these patients, low levels of emotional awareness (assessed with an implicit measure), is associated with a low level of self-reported impairments.

Congruent with these assumptions, we found that the narcissistic BPO subtype is overrepresented in SFD-patients. In line with this they present themselves as especially less depressive, less hostile and more socially competent on other self-reports than psychiatric controls, although SFD patients received more psychiatric illnesses on axis I by clinicians compared to psychiatric controls, and many of them requiring clinical treatment. They however do seem to be able to experience feelings of anxiety to a comparable extent as psychiatric controls. Combined with the results of previous findings [36,38] and congruent with [5], we suggest that the low level of self-reported depression and anger, and the high level of self-reported (social) competence among SFD-patients may be the result of defensive denial of especially depression, anger and social incompetence.

Clinical Implications

Structural dynamic assessment may complement descriptive diagnosis within the SFD-population. The combination of self-report data and indirect assessment using the theory-driven profile interpretation of the DSFM and the Social Cognition and Objectrelation Scale may yield information about both overt and covert aspects of psychopathology of SFD-patients, and may help to understand the underlying dynamics of these patients. SFD-patients with narcissistic BPO might need a different treatment approach than SFD-patients with PPO, since the latter group is more vulnerable and therefore somatization may serve a function to maintain psychic integration in this subgroup of SFD-patients.

Next, concerning treatment, patients with SFD could be made more aware of their covert tendency to emotionally withdraw from social relationships, and could be shown how their actual social behaviour is in contrast with this detaching tendency. This might result in an increased capacity to establish a positive social support system in a more constructive way.

Third, since somatization might ward off feelings of depression and anger, it is very important to be prepared for the emergence of depressive symptoms and of anger outburst during the treatment of SFD-patients. Successful treatment of the SFD might therefore render a subsequent treatment for depression and anger management necessary.

The outcome of this study has also implications for the use of self-reports in the context of assessing treatment outcome among SFD-patients, for example in the context of routine outcome monitoring. Given the favourable self-representation of the SFD-patients, the utility of self-reports for this purpose may be limited. In fact, among these patients, an increase in scores on self-reported psychological symptoms, especially depression and anger, after treatment might indicate that treatment for the SFD has been successful. Higher self-reported psychological distress would imply that the patient has become more psychologically minded and has required a better understanding of the psychological and emotional components of the physical symptoms. Future research should also include observer ratings, complementary to self-reports, given the favourable self-presentation of SFD-patients.

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