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Editor's Note

This chapter reviews recent developments in the empirical understanding of narcissistic personality disorder as defined in DSM-III and DSM-III-R. Empirical psychiatric methodology is used to test the validity of this new diagnostic entity by comparing it to other well-established psychiatric diagnoses and to another closely related personality disorder, borderline personality disorder. It is through such empirical investigation of reliably diagnosed patients that psychoanalytic conceptualizations can be tested, scrutinized, and refined in light of the empirical reality of patients' lives, an essential step if narcissistic personality disorder is to move from an exclusively psychoanalytic concept into the realm of empirical psychiatry.

Introduction

The publication of the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) by the American Psychiatric Association in 1980, with its introduction of a separate axis for personality disorder diagnoses, has been an event heralding much empirical research into the personality disorders, especially borderline personality disorder (BPD). DSM-III has by now given way to the 1987 revision of the third edition, DSM-III-R, which has made subtle but significant changes in the Axis II personality

disorders. These changes have included a reduction in criterion overlap among personality disorders, a decrease in the degree of diagnostic inference required to rate some criteria, and the use of an entirely polythetic diagnostic system for personality disorders, in which a specified minimum number of diagnostic criteria from a larger set is required to establish a diagnosis (Widiger et al. 1988). The monothetic diagnostic system sometimes used in DSM-III had required all criteria to be present for such diagnoses as schizoid, avoidant, dependent, and compulsive personality disorders.

Although narcissism has long been a subject of interest in psychoanalysis, especially in the decade preceding the publication of DSM-III, little empirical data about the disorder are available and there have been frequent calls for empirical data by authors of psychoanalytic papers on narcissism (Akhtar and Thomson 1982; Bursten 1982; Goldstein 1985; Nurnberg 1984; and others). The adoption of discrete diagnostic criteria for narcissistic personality disorder (NPD) in DSM-III has permitted the first systematic study of this disorder, but such data have lagged behind that available for BPD, the most extensively studied of the Axis II disorders. NPD as defined in DSM-III has become a useful benchmark, but the criterion set has been criticized for its lack of empirical support (Gunderson 1983; Vaillant and Perry 1985) and for not including recognition that NPD may be manifested in more ways than simply overt grandiosity, exhibitionism, and entitlement (Akhtar and Thomson 1982; Bursten 1982; Cooper 1987). In

DSM-III-R, NPD has been altered significantly. A criterion concerning envy has been added, a separate criterion concerning the belief that one's problems are unique has been separated from its prior inclusion in the DSM-III "grandiosity" criterion, and "cool and indifferent response to criticism" has been deleted because of its overlap with a BPD criterion. Just as important as these criterion changes has been the shift to a fully polythetic diagnostic format for NPD requiring five of a set of nine criteria to be present to make the diagnosis, a distinct improvement over the DSM-III format requiring four criteria to be monothetically present and then at least two of the remaining four to be present. Despite these diagnostic refinements, though, little empirical data have been available about NPD until quite recently. Indeed, according to Siever and Klar (1986), "There are to our knowledge no empirical studies of the criteria for [NPD], Its inclusion in DSM-III was based on the consensus of clinicians regarding its existence While [NPD] is widely discussed in the psychodynamic literature, there are no data supporting the coherence, validity or reliability of this diagnostic grouping" (pp. 299-301).

There are probably several reasons why empirical research has lagged in NPD. The diagnosis has been of primary interest to psychoanalysts and psychoanalytically oriented psychiatrists who historically have shown little interest in empirical research. Further, many narcissistic patients are relatively high functioning and either do not present for treatment at all or present as outpatients. Indeed, hospital treatment of NPD may be relatively

rare in short-term hospital settings unless there is significant comorbidity with an Axis I diagnosis such as a major affective disorder, substance abuse and/or dependence, or another Axis II disorder, such as BPD with attendant physically self-damaging acts, self-destructiveness, and impulsivity leading to hospitalization.

At this writing, Gunderson, Perry, and others are in the process of collecting data on samples of narcissistic patients which will be welcome additions to the empirical data available on NPD. Gunderson and Ronningstam (1987) have been developing a semistructured diagnostic interview for narcissism (the DIN) assessing five dimensions of narcissism (grandiosity, interpersonal relations, reactiveness, affects and mood states, and social and moral adaptation), which overlap but are not identical to DSM-III NPD criteria. Ronningstam and Gunderson (1987) have reported that the DIN discriminates narcissistic from nonnarcissistic clinician-rated patients. The fully developed DIN should allow refined, reliable clinical diagnoses of NPD comparable to those now possible through use of the Diagnostic Interview for Borderlines (Gunderson et al. 1981).

Pfohl et al. (1986) at the University of Iowa have studied the internal consistency of individual DSM-III criteria. Of their 131 patients with personality disorder, only 5 met criteria for NPD. They were unable to calculate an overall kappa coefficient for interrater reliability for the presence

of the diagnosis. Following the mixed monothetic and polythetic model of NPD found in DSM-III, Pfohl et al. studied the positive predictive value of each NPD criterion for the diagnosis—that is, the probability that a patient will meet criteria for NPD if a given criterion is present. The low positive predictive value of DSM-III criterion D (response to criticism), with its low interrater reliability (kappa = 0.20), was noteworthy. They speculate that the low reliability of this item resulted from the fact that "the full text of the criterion mentions six possible reactions to three possible situations: 'Cool indifference or marked feelings of rage, inferiority, shame, humiliation, or emptiness in response to criticism, indifference of others, or defeat.' [DSM-III, p. 317]" (Pfohl 1986, p. 29). Indeed, in DSM-III-R, this criterion is reworded to "reacts to criticism with feelings of rage, shame, or humiliation (even if not expressed)" (p. 351). DSM-III criterion E4 (lack of empathy) also showed poor reliability with a positive predictive value of only 20% and a kappa of 0. As has also been noted in numerous psychoanalytic articles, Pfohl et al. commented on the close relationship between NPD and BPD.

Recently, Stone (1989) and McGlashan and Heinssen (1989) have published studies of narcissism in patients with BPD. Stone (1989) found that long-term outcome of those P.I.-500 patients with BPD who had narcissistic traits falling short of or fulfilling criteria for NPD was similar to outcome in the overall group of BPD patients. Stone noted that BPD patients with NPD tended to be male and to be at greater risk for completed suicide than BPD

patients without NPD. McGlashan and Heinssen (1989) evaluated the impact of narcissistic traits on long-term outcome of BPD patients from the Chestnut Lodge follow-up study. Although the authors found little difference at long-term follow-up between noncomorbid BPD patients and BPD patients with some narcissistic traits, at baseline, BPD patients with narcissistic traits showed a nonsignificant trend to have had more and longer hospitalizations and to be older at onset of illness and at index hospitalization than noncomorbid BPD patients. At follow-up, there was a nonsignificant trend for BPD patients with narcissistic traits to be functioning more poorly socially and vocationally, to have more problems with alcohol, to have been more likely to attempt suicide in the follow-up interval, and to have performed more poorly in terms of global functioning at follow-up than noncomorbid BPD patients. Both these studies are valuable contributions to the empirical understanding of personality disorders, but they do not offer data about NPD patients per se, because few if any patients with NPD who did not also meet criteria for BPD were found in the locked long-term settings under study. Nevertheless, the hints they provide that narcissistic traits are more often seen in male BPD patients and that BPD patients with narcissistic traits seem to show a consistent if nonsignificant trend toward worse outcome than noncomorbid BPD patients foreshadow some of the differences reported below about NPD patients with comorbid BPD.

Richman and Flaherty's interesting work on gender differences in

narcissistic styles was presented in Chapter 2. The remaining empirical studies of NPD available in the literature to date are based on a group of former psychiatric inpatients who participated in a follow-up study after a mean of 14 years from admission at the Austen Riggs Center in Stockbridge, Massachusetts, a long-term, fully open psychiatric hospital emphasizing intensive psychoanalytic psychotherapy. Because the hospital's treatment emphasis is intensive psychoanalytic psychotherapy, it is more common than in other inpatient settings to find patients meeting the NPD diagnosis. Often these NPD patients have been unable to sustain outpatient treatment and are unlikely to benefit from short-term hospitalization.

Four pertinent empirical studies have emerged from the Austen Riggs Center follow-up study. In the first of these (Plakun 1987), I examine the frequency of BPD and NPD criteria in each of the two diagnoses, report phi coefficients of correlations for each BPD or NPD criterion with each diagnosis, and use a stepwise multiple-regression technique to assess the relative predictive power of the 16 total BPD and NPD criteria for each diagnosis. In the second of these studies (Plakun 1989), the validity of the NPD diagnosis is examined by comparing and contrasting NPD patients to those meeting DSM-III criteria for schizophrenic disorder or major affective disorder in terms of longitudinal course and mean 14-year outcome. In the third study (also Plakun 1989), I compare and contrast NPD and BPD patients, shedding light on similarities and differences between the two disorders, which have been

conceptualized to be closely related and along the same diagnostic continuum. In the fourth study, correlates of outcome in NPD and BPD are reported and compared (Plakun 1988). Before summarizing the findings of these studies, a few words about methodology are appropriate.

Methods

All subjects were originally inpatients at the Austen Riggs Center, a long-term, fully open psychiatric hospital emphasizing intensive psychoanalytic psychotherapy at which the mean stay approaches one and a half years. Patients at the center have generally failed to benefit from prior short-term hospitalization and/or outpatient treatment with or without medication, leading to referral for longer-term inpatient treatment. Despite generally being treatment failures, patients are selected for their ability to work in a completely open setting and therefore are relatively high functioning. The most frequent diagnosis is BPD, with or without superimposed major affective disorder, but substantial numbers of patients also meet criteria for schizophrenic spectrum disorders or other severe personality disorders including NPD. There is no privilege system and no restriction of patients' freedom, and there are no closed units. There is 24-hour nursing coverage and a doctor on call, a voluntary activity program, and a self-governing patient community with staff consultants. During the index hospitalization, patients receive 4 or 5 hours of individual psychotherapy

each week from an experienced board-eligible or -certified psychiatrist or doctorate-level clinical psychologist. Patients are referred from throughout the United States and from other countries. In 1979, an effort was made to contact by mail the 878 patients treated for at least 2 months between 1950 and 1976 to compare their current functioning to that preceding admission. A 2-month stay was determined to be the minimum period to have permitted collection of adequate data to make retrospective DSM-III diagnoses. Of the former patients, 252 could not be located, 262 failed to respond to requests for participation, 33 refused participation, and 94 had died, primarily in the oldest group of patients treated between 1950 and 1960. Thus, from a domain of 878 former patients, 237 or 27% of the total group, but 45% of living former patients who could be located, responded to an invitation and completed mailed follow-up questionnaires. This response rate compares favorably with the 25-30% for mailed questionnaires preferred by Warner et al. (1983) in their study of follow-up methods. Warner et al. note that the lower response rate with mailed questionnaires, compared with in-person or telephone interviews, is more than compensated for by the minimization of responses intended to please the interviewer.

The sample consisted of 89 (38%) men and 148 (62%) women with a mean age of 24.5 years (SD 7.7 years) at admission. The mean length of stay during the index hospitalization was 16.6 months (SD 10.6). The mean interval between admission and follow-up was 13.6 years (SD 6.6). The

sample proved representative of the entire population on the basis of respondent versus nonrespondent comparisons of admission variables, suggesting no significant difference between groups.

Each subject's hospital record contained preadmission and admission summaries, a detailed case history, nursing notes, and activities reports. Only variables for which blind raters could achieve adequate interrater agreement were used. Retrospective DSM-III diagnoses based on portions of the case record were made by two raters blind to patient identity and clinical diagnosis for the 237 respondents. Interrater reliability was established on 25 patients leading to kappa coefficients of 0.81 ($Z = 2.79$, $P < .01$, two tailed) and 0.69 ($Z = 2.02$, $P < .05$, two tailed) for Axis I and Axis II disorders, respectively. These compared favorably with the kappas of the DSM-III field trials in which Axis I and Axis II kappas were 0.68 and 0.56, respectively. The kappa for BPD alone among the jointly rated group of charts was 0.78 ($Z = 0.81$, $P < .05$). For NPD, kappa was 1.0 ($Z = 1.47$, $P = .01$), indicating complete rater agreement on the presence or absence of NPD in all cases in the sample of 25 charts. The kappa of 1.0 falling just short of significance reflects the infrequency of the NPD diagnosis in the sample; that is, most of the "agreement" in the kappa is about the absence of NPD. Certainly, kappa would not likely prove to be 1.0 for NPD among all 237 charts, but agreement of this degree in the reliability sample suggests adequate interrater agreement. DSM-III does not report kappas for individual Axis II diagnoses, so no

comparison can be made. The two raters were in agreement about the presence or absence of individual NPD criteria between 75% (for "preoccupation with fantasies of success") and 90% (for "response to criticism") of the time. The 90% agreement on response to criticism is particularly noteworthy in light of the report of low interrater agreement for this criterion in the study by Pfohl et al. (1986). There was agreement about BPD criteria between 70% (for "unstable and intense relationships") and 95% (for "intolerance of being alone") of the time. Based on adequate demonstration of interrater agreement, the remaining patients were assigned DSM-III diagnoses, but were also rated for the presence or absence of each Axis II criterion by one of the two raters. In recognition of the problem posed by the mixed monothetic and polythetic diagnostic system of DSM-III, which confounds study of individual criteria, NPD was diagnosed with a polythetic model requiring the presence of at least five of the eight total DSM-III NPD criteria, A-D and E1-E4. Thus, although it was DSM-III criteria that were rated for NPD, the diagnosis was made with the polythetic system later adopted in DSM-III-R. The BPD diagnosis also required at least five of the eight DSM-III BPD criteria.

Forty-four patients met criteria for BPD but were free of major affective disorder (MAD) and NPD. Nineteen patients met criteria for NPD, but were free of MAD and BPD. Eight patients met criteria for both BPD and NPD while free of MAD and were excluded from subsequent comparisons. For the first

study, which examined the ability of NPD and BPD criteria to distinguish between the two diagnoses, inclusion of BPD and NPD patients who nearly met criteria for the other diagnosis by meeting four of its criteria was desirable. Thus, all 44 BPD and all 19 NPD patients were included. For the remainder of the studies, though, where part of the focus was on comparing and contrasting BPD and NPD, the use of as "pure" a group of BPD and NPD subjects as possible was desirable. Further, it is probably true that long-term NPD inpatients are more likely to display borderline traits than outpatients, a factor also favoring elimination of patients meeting four criteria from the reciprocal diagnosis from the BPD and NPD groups. Two NPD patients were thus eliminated, leaving a group of 17 NPD patients, among whom 3 met five, 2 met seven, and 12 met six NPD criteria. Of these 17 NPD patients, 5 met three BPD criteria, 11 met two, and 1 met one. The most common BPD criterion found in 11 of the 17 NPD patients was "a pattern of unstable and intense relationships," probably reflecting the similarity of this criterion to the NPD criterion for "overidealized and devalued relationships." Since 14 of the 17 NPD patients met six or more of the eight NPD criteria, they were a strongly narcissistic group despite the presence of some borderline traits.

Eleven patients were eliminated from the original BPD group because they met more than three NPD criteria. Of the resulting group of 33 BPD patients, 2 met three NPD criteria, 8 met two, and the remainder met one or none. Thus, more than two-thirds of the "pure" BPD patients were free or

nearly free of NPD traits.

Distinguishing NPD and BPD With DSM-III Criteria

Each BPD and NPD criterion was correlated with each of the two diagnoses and with all other BPD and NPD criteria for the less "pure" group of 44 BPD patients and 19 NPD patients. Phi correlation coefficients with x^2 were used because the presence or absence of a criterion or diagnosis is categorical data. In addition, maximum R^2 and minimum R^2 improvement stepwise regressions rank ordering the ability of each BPD or NPD criterion to predict the presence of BPD were performed.

Table 1 lists all 16 NPD and BPD criteria, their frequency of occurrence in each of the two diagnoses, and the phi correlation coefficients of each criterion with each diagnosis. Among the NPD criteria, "grandiosity," found in 95% of NPD patients and only 16% of BPD patients, was the most highly predictive, with a phi correlation coefficient of 0.74 ($x2 = 36.7$, $P < .0001$). "Overidealized and devalued relationships" had the only nonsignificant correlation with NPD (phi = 0.16, $P = .2$). It is immediately apparent that among the BPD criteria the correlations are considerably lower than is the case for NPD. "Unstable and intense relationships" was frequent in both BPD and NPD, leading to a phi coefficient of correlation of only 0.21, P=.08.

Table 1. Narcissistic personality disorder (NPD) and borderline personality

disorder (BPD) DSM-III criteria: frequency in NPD and BPD patients and phi correlation coefficients

	NPD patients (*n* =19)		BPD patients (*n* =44)			
	Frequency	**% with each criterion**	**Frequency**	**% with each criterion**	**Phi correlation coefficient**	**P of x^2**
NPD criteria					vs. NPD	
A. Grandiose sense of self-importance	18	95	7	16	0.74	.0001
B. Preoccupation with fantasies of success	16	84	12	27	0.54	.0001
C. Exhibitionism	17	89	7	16	0.70	.0001
D. Cool indifference or overreaction	18	95	21	48	0.46	.0001
E1. Entitlement	9	47	1	2	0.52	.0001
E2. Interpersonal exploitativeness	16	84	10	23	0.58	.0001
E3. Overidealized and devalued relationships	6	32	8	18	0.16	.2
E4. Lack of Empathy	9	47	5	11	0.41	.001
BPD criteria					vs. BPD	
A1. Impulsivity	8	42	40	91	0.44	.0001

A2. Unstable and intense relationships	12	63	39	89	0.21	.08
A3. Inappropriate, intense anger	4	21	26	59	0.31	.01
A4. Identity disturbance	9	47	36	82	0.28	.02
A5. Affective instability	5	26	29	66	0.32	.01
A6. Intolerance of being alone	0	0	13	30	0.31	.01
A7. Self-damaging acts	5	26	29	66	0.32	.01
A8. Chronic emptiness or boredom	1	5	15	34	0.28	.02

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Table 2 reports results of a maximum R^2 improvement stepwise regression rank ordering the 16 criteria for BPD and NPD in terms of their ability to predict the presence of BPD. The same sequence emerged from the use of a minimum R^2 improvement stepwise regression. Table 2 shows the sequence of the regression and the rank by phi correlation coefficient alone for comparison. Because the multiple regression takes intercorrelations between individual criteria into consideration, the rank by phi correlation coefficient alone is not duplicated. For example, “grandiosity” and

"exhibitionism" have the highest individual correlations with the NPD and BPD diagnoses overall (phi = ±0.74 and phi = ±0.70, respectively), but are also highly intercorrelated (phi = 0.71, x2 = 3.12, $P < .0001$), thereby diminishing the predictive power of each criterion in the overall stepwise regression.

The predictive power gained by adding variables fell off sharply after the first five, so an additional maximum R^2 improvement stepwise regression was performed to extract the best five-variable model for distinguishing BPD and NPD. This model accounts for 81% of the total variance in discriminating between the two diagnoses (df = 62, P= .001). Table 2 also shows the sequence of this regression. Note that the sequence is not the same as the first five criteria of the best 16-variable model. It is worth noting that NPD criteria appear to have the greatest power to discriminate between NPD and BPD, four of the five criteria proving to be NPD criteria.

Table 2. Sequence of maximum R^2 stepwise regressions of 16- and 5-criteria models for prediction of borderline personality disorder (BPD) with rank by phi correlation coefficient

Rank in 16-variable model (beta weight; *P*)	Rank in 5-variable model (beta weight; *P*)	Rank by phi alone		DSM-III criterion
1 (-.29; .0001)	1 (-.36; .0001)	5	NPD E1	Entitlement
2 (-.27; .0004)	4 (-.23; .004)	2	NPD C	Exhibitionism
3 (.23; .003)		13	BPD A8	Emptiness or boredom

4 (-.21; .004)	2 (-.35; .0001)	1	NPD A	Grandiosity
5 (.18; .0004)	5 (.22; .0001)	11	BPD A3	Inappropriate, intense anger
6 (.16; .002)		10	BPD A7	Self-damaging acts
7 (.15; .02)		7	BPD A1	Impulsivity
8 (-.13; .03)		3	NPD E2	Exploitativeness
9 (-.11; .06)	3 (-.23; .0001)	4	NPD B	Preoccupation with fantasies of success
10 (.07; .2)		9	BPD A5	Affective instability
11 (.07; .2)		15	BPD A2	Unstable and intense relationships
12 (.06; .3)		16	NPD E3	Overidealized and devalued relationships
13 (.05; .4)		12	BPD A6	Intolerance of being alone
14 (.04; .5)		6	NPD D	Cool indifference or overreaction
15 (.01; .8)		8	NPD E4	Lack of empathy
16 (-.01; .8)		14	BPD A4	Identity disturbance

Note: n=63 patients with BPD or narcissistic personality disorder (NPD). df=62

Source: Adapted from Plakun 1987 with permission from the publisher. Copyright Grune & Stratton 1987.

This study demonstrates that DSM-III BPD and NPD criteria can reliably discriminate between the two diagnoses. NPD criteria had more predictive power than BPD criteria in discriminating between the two diagnoses whether one looked at phi coefficients of correlation or stepwise regressions. NPD criteria may simply be more specific than BPD criteria, which in a number of respects describe a generic personality disturbance rather than the kind of specific mental content or focused interpersonal impairment delineated in NPD. It is also possible that the greater predictive power of NPD criteria in this sample reflects the likelihood that NPD patients disturbed enough to present for treatment at a long-term hospital may have significant borderline liability despite meeting few BPD criteria. This would suggest that these NPD patients may differ from NPD outpatients. Kernberg (1975, 1980) and Adler (1981, 1986) have written of a range of severity of pathology in narcissistic patients. The relatively high frequency of such BPD criteria as "impulsivity," "unstable and intense relationships," and "identity disturbance" in NPD patients is consistent with this explanation. In any case, the data available from these patients do suggest that DSM-III criteria for NPD and BPD can reliably distinguish between the two diagnoses, even in a patient sample in which the difference between the diagnoses may be minimal. As a cautionary note, it is important to remember that these data shed no light on discrimination of any other diagnosis from either NPD or BPD.

It is worth noting that the correlations in Table 1 and the regressions in

Table 2 do not lead to the same sequences in rank ordering the predictive value of individual criteria for these two diagnoses. The stepwise regressions take intercorrelations between criteria into account in a way that simple rank ordering of correlations cannot. An example of this has been cited above for NPD "grandiosity" and "exhibitionism." The findings of this study support the decision implemented in DSM-III-R to minimize the degree of intercorrelation in the BPD criteria for "impulsiveness" and "self-mutilating behavior" by specifying that the same behavior cannot be used to meet both criteria. The phi correlation coefficient for the

DSM-III version of these two criteria was significant (phi = 0.36, x^2 = 8.50, P = .004). Similarly, these data support the decision implemented in DSM-III-R to eliminate the NPD criterion for "overidealized and devalued relationships," which is quite similar to the BPD criterion for "unstable and intense relationships." This feature of relationships is so much more prototypic of the BPD diagnosis that the NPD version of the criterion failed even to approach significance in discriminating between the two diagnoses, as shown in Table 1.

Validity of NPD

A decade before the introduction of DSM-III, Robins and Guze (1970) made an important contribution to psychiatric diagnosis by proposing steps

required in establishing the validity of new diagnostic entities. One of their essentials in exploring the validity of new diagnostic entities is long-term follow-up in comparison with other disorders. Since the publication of DSM-III, studies by Pope et al. (1983), McGlashan (1983, 1986), Stone et al. (1987), Paris et al. (1987), and Plakun et al. (1985, 1987) have presented longitudinal course and outcome data on BPD compared with other diagnostic groups, which have gone a long way toward establishing the validity of BPD as defined in DSM-III. Indeed, despite the inherent methodologic weaknesses of retrospective psychiatric research, it has proven an extremely valuable technique in assessing diagnostic validity because the look back can provide data about longitudinal performance of patients in newly introduced diagnostic categories. NPD and the other personality disorders have not received as much interest as BPD heretofore. Recently, I (1989) have provided the first longitudinal course and outcome data on NPD, comparing it with schizophrenia and MAD, thereby following the procedure recommended by Robins and Guze for establishing the validity of new diagnostic entities, and following the course already charted for BPD.

As described above, two NPD patients meeting four BPD criteria were excluded from the study, as were patients meeting criteria for MAD, to provide as pure a group of NPD patients as possible. These 17 “pure” NPD patients were compared with 19 schizophrenic patients and 26 patients with MAD in terms of preadmission, index hospitalization, and follow-up

measures. Categorical variables were compared using an overall x^2 distribution with post hoc analysis of individual-cell x^2 where relevant. The continuous variables were studied with a one-way analysis of variance with post hoc comparison of the means with Duncan's multiple-range test.

Although statistically significant differences were relatively few, the preponderance of the data suggest that NPD, as has been previously demonstrated for BPD by McGlashan, Plakun et al., and Stone, tends to be more easily distinguished from schizophrenia than from MAD. NPD tended to differ from schizophrenia and/or MAD on 19 of the 25 preadmission measures used (Table 3), 3 of the 7 index hospitalization measures (Table 4), and 15 of the 19 follow-up measures (Table 5). Significant differences were noted in terms of preadmission social functioning (11% of schizophrenic patients were married versus 54% of MAD and 41% of NPD patients, x^2 = 9.01, df = 2, P = .01), preadmission hospitalization history (mean Strauss-Carpenter hospital scale score at admission higher in NPD patients at 3.7 than in schizophrenic patients at 2.9, Duncan's multiple-range test, F = 3.19, df = 2, P < .05), and greater preadmission chronicity in schizophrenia, where the mean age at first mental health contact was 16.2 versus 23.0 in MAD and 22.6 in NPD (Duncan's multiple-range test, F = 4.07, df = 2, P = .02). Two measures of global functioning at admission were significant. The mean admission Global Assessment Scale (GAS) score in schizophrenic patients was significantly lower at 30.2 than in MAD patients at 34.9 or NPD patients at

35.4 (Duncan's multiple-range test, $F = 8.76$, df = 2, $P < .001$). Significantly more schizophrenic patients presented at admission with major impairment as defined by a GAS score below 30 (58% of schizophrenic patients versus 19% of MAD and 18% of NPD patients, $x^2 = 9.6$, df = 2, $P < .01$).

Table 3. Validation summary of preadmission measures for narcissistic personality disorder (NPD) versus schizophrenia and major affective disorder (MAD)

Variable	NPD trend distinct from schizophrenia	NPD trend distinct from MAD	NPD unique	NPD indistinguishable from either	Row total
Social functioning	2*	0	0	1	3
Vocational functioning	0	0	1	2	3
Outpatient treatment	0	1	2	0	3
Hospital treatment	2*	0	4	1	7
Symptoms	1*	3	0	2	6
Global functioning	2**	0	1	0	3
Column total	7*****	4	8	6	25

*Statistically significant difference at $P < .05$ or better

Table 4. Validation summary of demographic, family history, and index hospitalization measures for narcissistic personality disorder (NPD) versus schizophrenia and major affective disorder (MAD)

Variable	NPD trend distinct from schizophrenia	NPD trend distinct from MAD	NPD unique	NPD indistinguishable from either	Row total
Demographic	0	1	0	1	2
Family history	0	0	1	0	1
Index hospitalization	3	0	0	4	7

Table 5. Validation summary of follow-up measures for narcissistic personality disorder (NPD) versus schizophrenia and major affective disorder (MAD)

Variable	NPD trend distinct from schizophrenia	NPD trend distinct from MAD	NPD unique	NPD indistinguishable from either	Row total
Social functioning	1	2*	1	1	5
Vocational functioning	0	1	1	0	2
Outpatient treatment	0	1	1	1	3
Hospital treatment	3**	0	0	0	3
Symptoms	0	0	1	2	3
Global functioning	2	0	1	0	3
Column total	6**	4*	5	4	19

*Statistically significant difference at $P < .05$ or better

Significant differences were found at follow-up in terms of rehospitalization history. Schizophrenic patients were rehospitalized a mean of 2.6 times in the mean 14-year follow-up interval compared to 0.8 time in MAD and 0.4 time in NPD patients (Duncan's multiple-range test, $F = 4.87$, df = 2, $P = .01$). The mean Strauss-Carpenter hospital scale score at follow-up, a 0-4 scale measuring the amount of hospitalization in the year before follow-up, showed schizophrenic patients to be significantly lower at 3.7 (i.e., more likely to have been hospitalized in the past year) than MAD patients at 4.0 or NPD patients at 4.0 (Duncan's multiple-range test, ir=4.51, df = 2, P= .01).

The tendency of NPD to differ more from schizophrenia than from MAD does not demonstrate a fundamental similarity between NPD and MAD, but only the lack of measurable difference on these variables. Trend-level differences between NPD and MAD existed in sex distribution, where NPD was as common in men as in women, whereas three times as many MAD patients were women, but also in terms of preadmission outpatient treatment, where NPD patients tended to have had 2 years of outpatient treatment at the time of admission compared to 3 years for MAD patients, and where three times as many NPD as MAD patients had had more than 6 months of psychoanalysis before the index admission. Similarly, NPD patients

tended to differ from MAD patients in terms of the absence of preadmission history of either electroconvulsive therapy (ECT) or involuntary hospitalization: 15% of MAD patients had previously received ECT and 4% had previously been committed involuntarily. Although NPD patients were the same age as MAD patients at onset of illness (22.6 years versus 23.0 years), NPD patients tended to be younger (25.9 years) than MAD patients (30.4 years) at the time of index admission. NPD patients showed a strong trend-level difference from MAD patients insofar as only 65% reported satisfactory intimate relations (> 2 on a 0-4 scale) compared to 92% of MAD patients at mean 14-year follow-up ($x^2 = 5.75$, df = 2, $P = .06$). Certainly, one retrospective study cannot completely delineate the validity of a new diagnosis, but the overall trends in the data lend support to the hypothesis that NPD is a valid diagnostic entity.

Longitudinal Comparison of NPD and BPD

Psychodynamic conceptualizations of narcissistic personality disorder have long included the notion that NPD is closely related to BPD and may share a single diagnostic continuum (Adler 1981, 1986; Bursten 1982; Kernberg 1975, 1980; Rinsley 1985). It was in part the recognition of this relationship that led to the inclusion of BPD and NPD within the same personality disorder cluster in DSM-III and DSM-III-R. No empirical study of NPD would be complete, then, without a comparison with BPD. The two are

so closely related that it should be manifestly clear from the outset that statistically significant differences are likely to be few. The only reported comparison of longitudinal course and outcome data on NPD and BPD patients is that of Plakun (1989), based on the sample of 17 "pure" NPD patients and 33 "pure" BPD patients described above. As elsewhere, categorical variables were compared with an overall x^2 distribution with post hoc analysis of individual-cell x^2 where relevant. Continuous variables were studied with a one-way analysis of variance with post hoc comparison of the means by Duncan's multiple-range test where appropriate. Tables 6-15 report the NPD versus BPD comparisons.

Table 6 demonstrates a nonsignificant trend for family history of psychiatric illness to be twice as common in borderline as in narcissistic patients. Although the samples were too small for the difference to achieve significance, the trend is for a female preponderance among patients meeting criteria for BPD but a roughly equal sex distribution in NPD.

Table 6. Preadmission demographic features and family history of narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis	
	NPD	**BPD**
Variable	(*n* = 17)	(*n* = 33)

Percentage who are women	52	70
Mean Hollingshead-Redlich social class (1 highest, 5 lowest)	2.2	1.9
Percentage with family history of psychiatric illness in parents or grandparents	18	36

Tables 7-10 report preadmission comparisons of NPD and BPD along several dimensions. There were strong trend-level differences suggesting NPD patients were at a social disadvantage at the time of index admission on the basis of a lower mean Strauss-Carpenter social scale score (Duncan's multiple-range test, $F = 3.69$, df = 1, $P = .06$) and more globally impaired than BPD patients because of a greater percentage of patients with an admission GAS score below 30 ($x^2 = 3.3$, df = 1, $P = .07$). In general, though, at index admission, NPD patients were more likely to have been married, but were more socially isolated and were more likely to have achieved successful independent living than BPD patients. Vocationally, as can be seen in Table 7, NPD patients seemed to have more difficulty than BPD patients despite comparable levels of education and similar socioeconomic status (see Table 6). NPD patients tended to have a few months less preadmission outpatient treatment than BPD patients, but were more likely to have had their outpatient treatment as psychoanalysis (Table 8). The index admission was the first hospitalization for nearly 60% of BPD patients and 40% of NPD

patients, but the mean number of previous hospitalizations was virtually identical for the two diagnoses. NPD patients had, on average, spent nearly a month more in total duration of hospitalization before the index admission and were a year younger than BPD patients when first hospitalized. Hospitalization for more than 3 months in the year before index hospitalization was rare in both diagnoses, as were previous history of ECT or involuntary hospitalization. NPD patients were nearly 2 years older than BPD patients at the time of first mental health contact, but their ages were the same at index admission, perhaps suggesting a shorter and more fulminant course to admission in NPD than BPD patients (Table 9). NPD patients were less likely to have demonstrated preadmission drug or alcohol problems or to have attempted suicide or other self-destructive acts than their BPD counterparts, as would be expected clinically, but self-destructive behavior was relatively frequent in NPD (Table 9).

Table 7. Preadmission social and vocational functioning of narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis	
	NPD	**BPD**
Variable	(n = 17)	(n = 33)
Social		

Percentage ever married at admission	41	27
Mean Strauss-Carpenter social scale score at admission (0, no meetings with others, to 4, weekly meetings)	2.5	3.2*
Percentage living in dorm or apartment apart from parents	47	61
Vocational		
Percentage unemployed at admission	24	30
Mean Strauss-Carpenter employment scale score at admission (0, unemployed, to 4, employed full-time)	2.5	2.8
Mean number of years of education	14.3	14.4

* In BPD versus NPD comparison, BPD > NPD, analysis of variance with post hoc comparison of means by Duncan's multiple-range test, F = 3.69, df = 1, P = .06.

Table 8. Preadmission treatment variables in narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis	
	NPD	**BPD**
Variable	(*n* = 17)	(*n* = 33)
Outpatient treatment		

Mean duration of preadmission outpatient treatment in months	22.8	27.0
Percentage with more than 6 months of preadmission psychoanalysis	24	6
Hospitalization history		
Percentage never hospitalized before admission	41	58
Mean age at first hospitalization	24.0	25.0
Mean number of previous hospitalizations	0.9	0.8
Mean duration in months of all previous hospitalizations	3.9	3.1
Percentage with more than 3 months in hospital in year before index hospitalization	0	3
Mean Strauss-Carpenter hospital scale score at admission (0, more than 75% of past year in hospital, to 4, no hospitalization in past year)	3.7	3.7
Percentage with preadmission history of electroconvulsive therapy	0	3
Percentage ever committed at time of index hospitalization	0	0

Table 9. Preadmission chronicity and symptoms in narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis	
	NPD	**BPD**
Variable	(*n* = 17)	(*n* = 33)
Mean age at first mental health contact	22.6	20.8
Mean age at index admission	25.9	25.4
Percentage with preadmission alcohol abuse or dependence	18	27
Percentage with preadmission drug abuse or dependence	24	30
Percentage with preadmission suicide attempts	18	22
Percentage with preadmission self-destructive acts	29	48

At the time of index admission, NPD patients seemed at a disadvantage in terms of global functioning (Table 10). Although the mean admission GAS score was practically identical for the two diagnoses, NPD patients as a group had a Strauss-Carpenter sum nearly a full point lower than BPD patients. Nearly one in five NPD patients had an admission GAS score below 30, whereas only 1 in 33 BPD patients scored this low, a difference noted above

to approach significance.

Table 10. Preadmission global functioning in narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis	
	NPD	**BPD**
Variable	(*n* = 17)	(*n* = 33)
Total Strauss-Carpenter scale score at admission (0-12)[a]	8.8	9.6
Mean admission GAS score	35.4	35.6
Percentage with admission GAS score less than 30	18	3[b]

Note. GAS = Global Assessment Scale.

[a] Symptom scale excluded because of lack of interrater agreement.

[b] In BPD versus NPD comparison, $x^2 = 3.3$, df = 1, P = .07.

Table 11 shows comparisons of NPD and BPD in terms of measures of the index hospitalization. The length of the index hospitalization was marginally longer for NPD than BPD patients. On average, NPD patients were less likely to have changed therapists or to have engaged in self-destructive behavior during the index admission and were more likely to have had their therapeutic goal rated as "achieved" by the therapist at discharge.

Table 11. Index hospitalization treatment experience of narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis	
	NPD	**BPD**
Variable	(*n* = 17)	(*n* = 33)
Mean length of index admission in months	16.7	16.2
Mean maximum full-scale IQ achieved	124	120 (*n* = 31)
Percentage with more than one therapist	18	24
Percentage with clinical review for treatment crisis	6	3
Percentage with self-destructive acts during index admission	12	18
Percentage transferred to another hospital to end index admission	6	3
Percentage with therapeutic goal rated "achieved" by therapist at discharge	71	61

Tables 12-15 report data on NPD and BPD at mean 14-year follow-up. The average NPD patient was less likely to have married or achieved

independent living and substantially less likely to have achieved satisfaction in intimate relations than the average BPD patient (Table 12). The vocational differences between the two at follow-up were trivial. In Table 13, rehospitalization is shown to be rare, and total time spent in the hospital in the follow-up interval was low for both diagnoses. On average, NPD patients were rehospitalized more often and for longer periods, although neither NPD nor BPD patients had been hospitalized at all in the year before follow-up. The average NPD patient had sustained outpatient treatment for almost a year longer than the average BPD patient, but NPD patients were also more likely to have had no psychotherapy in the follow-up interval than BPD patients. Medication use in the follow-up interval was found in approximately one in four NPD patients and one in five BPD patients. Suicide attempts during the follow-up interval were rare in both diagnoses, but, surprisingly, were found in a slightly greater proportion of NPD patients (Table 14). Table 15 reports follow-up global functioning. NPD patients had a marginally lower GAS score at follow-up, whereas just under two-thirds of NPD patients and just over three-quarters of BPD patients achieved one benchmark of good follow-up functioning, a GAS score of 60 or higher.

Table 12. Mean 14-year follow-up social and vocational functioning of narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis

Variable	NPD (n = 17)	BPD (n = 33)
Social		
Percentage ever married at follow-up	59	73
Percentage living in private residence, apart from parents	76	88
Percentage reporting at least one close friend	88	88
Percentage reporting satisfactory (2 or more of 4) intimate relationships	65	91
Strauss-Carpenter social scale score at follow-up (0, no meetings, to 4, meetings at least once weekly)	3.3	3.1
Vocational		
Percentage satisfied with work more than 75% of the time	31 (n = 16)	35 (n = 16)
Strauss-Carpenter employment scale score at follow-up (0, unemployed, to 4, full-time employment)	3.4	3.3

Table 13. Mean 14-year follow-up treatment experience of narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis	
	NPD	**BPD**
Variable	(*n* = 17)	(*n* = 33)
Hospital		
Mean number of hospitalizations in follow-up interval	0.4 (*n* =16)	0.2 (*n* =31)
Mean number of months hospitalized in follow-up interval	1.8	0.6
Mean Strauss-Carpenter hospital scale score at follow-up (0, 75% or more of past year, to 4, none)	4.0 (*n* =16)	4.0 (*n* =32)
Nonhospital		
Mean number of years in outpatient treatment in follow-up interval	4.6 (*n* =11)	3.7 (*n* =26)
Percentage with no psychotherapy in follow-up interval	24	12
Percentage receiving medication at any time in follow-up interval	25 (*n* =16)	21

Table 14. Mean 14-year follow-up symptom history of narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis

Variable	NPD (*n* = 17)	BPD (*n* = 33)
Percentage with suicide attempts in follow-up interval	12 (*n* =16)	6 (*n* =32)
Mean number of suicide attempts in follow-up interval	0.2	0.3
Mean Strauss-Carpenter symptom scale score at follow-up (0, severe, to 4, no symptoms)	2.5	2.5

Table 15. Mean 14-year follow-up global functioning of narcissistic personality disorder (NPD) and borderline personality disorder (BPD) patients

	Diagnosis	
Variable	**NPD** (*n* = 17)	**BPD** (*n* = 33)
Mean GAS score at follow-up	64.7	66.6
Percentage with follow-up GAS score of 60 or higher	65	76
Total Strauss-Carpenter scale score at follow-up (0-16)	12.9	12.8

Note. GAS = Global Assessment Scale.

In summary, NPD and BPD showed more similarities than differences, as expected. Perhaps the most noteworthy difference is the apparent absence of a female preponderance in NPD. At admission, BPD patients showed evidence of better social and global functioning. Such differences as were noted during the index hospitalization probably reflect the greater impulsivity and self-destructiveness expected in BPD. At follow-up, NPD patients, perhaps surprisingly, appeared to be at a disadvantage to BPD patients in terms of social and global functioning, rehospitalization history, and also in terms of a low level of subjective satisfaction with intimate relations approaching statistical significance.

McGlashan (1986) reported that when he studied global outcome as a function of length of follow-up in BPD an "inverted U" pattern results, with poor outcomes tending to occur in the first and third decades of follow-up, but rarely in the second decade. This same "inverted U" pattern is found in the Austen Riggs Center BPD sample when GAS score range is graphed as a function of length of follow-up. No such "inverted U" is found in the Austen Riggs Center sample of NPD patients when GAS score range is graphed as a function of follow-up interval, good and poor outcomes being found throughout all periods of follow-up.

The presence of an "inverted U" pattern of infrequent poor outcomes in

the second decade of follow-up in two studies of BPD patients and the absence of an "inverted U" in NPD patients in the Austen Riggs Center sample is an interesting and provocative finding. It may suggest that the psychodynamics or natural history of BPD patients better suits them to deal with the life issues of their late 30s and early 40s than NPD patients. Another possibility worthy of serious consideration is that BPD patients who might have presented with poor functioning in this middle range of follow-up fail to do so because of successful suicide. Neither McGlashan's nor Plakun's studies were able to definitively trace successful suicide in their geographically diverse patient samples, but Paris et al. (1987) and Stone et al. (1987) have suggested that suicide risk in BPD approaches 10%.

Correlates of Outcome in NPD

Empirical studies of outcome in NPD and BPD have made inroads in establishing the validity of these diagnostic entities and have provided substantial descriptive information. One feature common to both diagnoses is marked heterogeneity of outcome, with more difference in longitudinal course and outcome found within each diagnostic group than between them. As noted above, part of this heterogeneity in BPD appears to be a function of length of follow-up, but this does not account for much of the outcome variance. Some work has already been done by McGlashan (1985, 1986) and Plakun (1988) in exploring what accounts for the heterogeneity of outcome in

BPD. This work is exciting and provocative to the clinician as well as the empirical psychiatrist because of its implications for psychodynamic understanding and treatment.

Schizophrenia is the diagnosis for which most is known about prediction of outcome. In his effort to understand outcome prediction in BPD, McGlashan (1985) tested the rules of outcome prediction established in schizophrenia, where 1) like tends to predict like (for example, poor premorbid social functioning predicts poor follow-up social functioning); 2) symptoms of the manifest illness are diagnostically useful but are of little value in outcome prediction, unless the illness is already chronic; 3) demographic and background variables have little predictive power; and 4) social, sexual, and vocational functioning are strongly related to outcome throughout the illness course. In his sample of BPD patients, McGlashan found that like predicted like only for hospital outcome. Surprisingly, symptoms of the manifest illness were strong predictors of outcome, and social, sexual, and vocational functioning were of little predictive value. In what follows, outcome prediction in the 17 NPD patients who are part of the Austen Riggs Center sample will be described and comparisons made to outcome prediction in BPD.

Table 16. Dimensions of outcome

Hospitalization—Number of months hospitalized in follow-up interval

Vocational functioning—Strauss-Carpenter employment scale score for year before follow-up

Social functioning—Strauss-Carpenter social scale score for year before follow-up

Intimate functioning—Degree of satisfaction with intimate relationships at follow-up

Achievement of marriage or stable relationship—achievement of marriage or stable relationship at follow-up

Symptoms—Strauss-Carpenter symptom scale score for year before follow-up

Global functioning—Global Assessment Scale score at follow-up

Seven different dimensions of outcome were selected for study, as shown in Table 16. They include 1) follow-up interval rehospitalization as measured by the number of months hospitalized in the follow-up interval, 2) vocational functioning as measured by the Strauss-Carpenter employment scale for the year before follow-up, 3) social functioning as measured by the Strauss-Carpenter social scale for the year before follow-up, 4) intimate functioning as measured by the degree of satisfaction with intimate relationships, 5) achievement of marriage or a stable relationship at follow-up (the only categorical rather than continuous outcome dimension), 6) symptoms as measured by the Strauss-Carpenter symptom scale for the year before follow-up, and 7) global functioning as measured by the GAS score at follow-up. Table 17 details the four classes of outcome predictors selected for study: 1) demographic background variables; 2) measures of preadmission functioning; 3) psychiatric illness variables, including onset of the manifest illness, the presence of personality disorder criteria, symptoms, and measures

of chronicity; and 4) index hospitalization variables. Three sets of correlations were performed for the 17 "pure" NPD patients and the 33 "pure" BPD patients. First, outcome dimensions were correlated with each other to test whether these were indeed relatively independent. Second, predictor versus predictor correlations were performed to test for significant intercorrelations. Finally, the predictors were correlated with outcome dimensions to assess which predictors correlated most highly with the seven outcome dimensions. Most of the correlations were performed using the Pearson *r* coefficient of correlation, appropriate for continuous variables. When the categorical outcome dimension of "achievement of marriage or a stable relationship" was studied against another categorical predictor variable (e.g., sex), a phi coefficient of correlation was used.

Table 17. Outcome predictor variables

Demographic variables

- Sex
- Hollingshead-Redlich Social Class
- Family history of psychiatric illness in parents, grandparents, or siblings
- Adoption status
- Moves before age 13
- Birth order
- Presence of divorce in parents

Preadmission functioning

- Years of education at admission

- Marital status at admission
- Strauss-Carpenter employment scale score at admission
- Strauss-Carpenter social scale score at admission

Psychiatric illness variables

- Onset variables
  - Age at first mental health contact
  - Age at first hospitalization
  - Time from first contact to first hospitalization
- Personality trait variables
  - Criteria for borderline personality disorder
  - Criteria for narcissistic personality disorder
  - Criteria for schizotypal personality disorder
- Symptom variables
  - Alcohol or drug abuse and/or dependence
  - Preadmission self-destructiveness
- Chronicity
  - Total duration of preadmission outpatient treatment
  - Total duration of prior hospitalizations
  - Hospitalization history in year before index admission (Strauss-Carpenter hospital scale score at admission)
  - Preadmission electroconvulsive therapy
  - Preadmission commitment

Index admission variables

- Age at index admission
- Global Assessment Scale score at admission
- Length of index admission
- Highest IQ achieved during index hospitalization
- Age at follow-up
- Length of follow-up interval

- Psychotherapy helpfulness rating by patient at follow-up
- Discharge from index hospitalization by transfer to another hospital
- Therapeutic goal rated as ''achieved" by therapist at discharge
- Self-destructiveness during index admission
- Number of clinical reviews for treatment crises
- Number of therapists during index hospitalization

Details of the BPD correlations will be published elsewhere but are commented on as relevant. The outcome dimension versus outcome dimension intercorrelations indeed demonstrated their relative independence of one another, with a few notable exceptions. In NPD patients, global outcome was significantly intercorrelated with achievement of marriage or a stable relationship at follow-up (r = .58, $P < .05$) and with symptoms at follow-up *(r* = .70, $P < .01$), intercorrelations that are not surprising because global outcome is inevitably a summation of individual outcome dimensions. Hospitalization and vocational outcome were also significantly intercorrelated in NPD, with *r* = -.79 *(P* < .001). In this sample of NPD patients, then, less rehospitalization during the follow-up interval was strongly correlated with better vocational functioning. Predictor versus predictor intercorrelations were rarely significant and will be commented on where pertinent.

Tables 18-24 report the highest correlates of good outcome in NPD for the seven outcome dimensions. Good hospitalization outcome, that is, fewer

months rehospitalized during the entire follow-up interval, was associated with the absence of two personality disorder criteria, schizotypal "suspiciousness or paranoid ideation" (r = .63, *P* = .009) and BPD "inappropriate, intense anger" (r = .56, *P* = .02; Table 18). Having had a planned discharge as opposed to a discharge for external or financial reasons or because of a therapeutic impasse or crisis, a 3-point scale, also correlated with good hospitalization outcome (r = .45, *P* = .08). In contrast with outcome prediction in schizophrenia, like did not predict like. Greater duration of hospitalization before the index hospitalization had a negative correlation with the duration of hospitalization in the follow-up interval *(r* = -.40, *P* NS).

Table 18. Correlates of good outcome in narcissistic personality disorder: hospitalization

Hospitalization: Number of months hospitalized in total follow-up interval (mean ± SD 1.8 ± 5.1 months, range 0-20)		
Less rehospitalization associated with		
• Absence of schizotypal DSM-III criterion A7 (suspiciousness or paranoid ideation)	*r* = .63	*P* = .009
• Absence of borderline personality disorder DSM-III criterion A3 (inappropriate, intense anger)	*r* = .56	*P* = .02
• Planned discharge versus discharge for external or financial reasons or because of therapeutic impasse or crisis (3-point scale)	*r* = .45	*P* = .08
• Greater duration of prior hospitalization	*r* = -.40	*P* NS

Note. *n* = 16

For vocational functioning, better outcome was associated with being eldest in the sibship or an only child (r = -.53, *P* = .03; Table 19). Again, the absence of two personality disorder criteria was associated with better vocational outcome. The absence of schizotypal "suspiciousness or paranoid ideation" (r = -.48, *P* = .05) and of NPD "lack of empathy" (r = -.44, *P* = .08) were both associated with better vocational functioning at follow-up. The correlation of schizotypal "suspiciousness or paranoid ideation" with vocational and hospitalization outcome no doubt reflects in part the significant intercorrelation between hospitalization and vocational outcome noted in the outcome dimension intercorrelations. A retrospective rating by the patient of the index hospitalization psychotherapy as unhelpful was associated with better vocational outcome *(r* = .44, *P* = .09). Again, like failed to predict like. Lower admission Strauss-Carpenter vocational scale score was weakly negatively correlated with Strauss-Carpenter employment scale score at follow-up *(r* = -.16, *P* NS).

Table 19. Correlates of good outcome in narcissistic personality disorder (NPD): vocational functioning

Vocational functioning: Strauss-Carpenter employment scale score based on year before follow-up (mean ± SD 3.4 ± 1.1, range 0-4)

Better outcome associated with

• Being eldest in sibship or only child	*r* = -.53	*P* = .03
• Absence of schizotypal DSM-III criterion A7 (suspiciousness or paranoid ideation)	*r* = -.48	*P* = .05
• Absence of NPD DSM-III criterion E4 (lack of empathy)	*r* = -.44	*P* = .08

(Note: Presence of NPD E4 correlated with better social outcome)		
• Retrospective patient rating of index psychotherapy as unhelpful	*r* = .44	*P* = .09
Lower admission Strauss-Carpenter vocational scale score	*r* = -.16	*P* NS

Note. *n* = 17

Table 20 shows correlates of good social functioning in NPD patients at long-term follow-up. Fewer moves before age 13 had the strongest correlation with good outcome. Patients in this sample ranged from the highest socioeconomic classes to middle class. Interestingly, lower socioeconomic status at index hospitalization, that is, being middle class rather than upper class, correlated with better outcome. Similarly, the absence of BPD "emptiness or boredom" and the presence of BPD "impulsivity" correlated with better social functioning at outcome, suggesting that in NPD patients greater affective availability and less bored emptiness may be positive signs. It is worth noting here, though, that lower socioeconomic status intercorrelated with fewer moves before age 13 (r = .55, *P*= .02), shorter length of index hospitalization *(r*= -.52, *P* = .03), and the presence of BPD "impulsivity" *(r* = .52, *P* = .03). The absence of self-destructive acts during the index hospitalization had a moderate correlation with good social outcome, a finding at variance with the case in BPD patients, in whom self-destructive acts during the index hospitalization were associated with better outcome. A greater duration of hospitalization before the index admission correlated with better social functioning at outcome, as

did the presence of NPD "lack of empathy." Again, like failed to predict like, the Strauss-Carpenter social scale at admission having a weak negative correlation with the Strauss-Carpenter social scale at follow-up.

Table 20. Correlates of good outcome in narcissistic personality disorder (NPD): social functioning

Social functioning: Strauss-Carpenter social scale score based on year before follow-up (mean ± SD 3.3 ± 1.0, range 1-4)		
Better outcome associated with		
• Fewer moves before age 13	*r* = -.58	*P* = .01
• Absence of borderline personality disorder (BPD) DSM-III criterion A8 (emptiness or boredom)	*r* = -.56	*P* = .02
• Lower socioeconomic status at index hospitalization (Hollingshead-Redlich middle class > upper class)	*r* = .54	*P* = .02
• Presence of BPD DSM-III criterion A1 (impulsivity)	*r* = .54	*P* = .03
• Being male	*r* = -.54	*P* = .03
• Absence of self-destructive acts during index hospitalization	*r* = -.47	*P* = .06
• Greater duration of prior hospitalizations	*r* = .47	*P* = .06
• Presence of NPD DSM-III criterion E4 (lack of empathy) (Note: Absence of NPD E4 correlated with better vocational outcome)	*r* = .42	*P* = .09
Lower admission Strauss-Carpenter social scale score	*r* = -.18	*P* NS

Note. *n* = 17

Table 21 reports the strongest correlates of good intimate functioning at follow-up as measured by satisfaction with intimate relationships at follow-

up. Better intimate functioning was associated with being eldest in the sibship or an only child and with the presence of self-destructive acts during the index hospitalization. This latter finding replicates the case in BPD where it predicted good intimate functioning and achievement of marriage or a stable relationship at follow-up.

Table 21. Correlates of good outcome in narcissistic personality disorder: intimacy

Intimacy: Degree of satisfaction with intimate relationships at follow-up (mean ± SD 2.1 ± 1.4, range 0-4)		
Better outcome associated with		
• Being eldest in sibship or an only child	*r* = -.56	*P* = .02
• Presence of self-destructive acts during index hospitalization	*r* = .44	*P* = .08
Higher admission Strauss-Carpenter social scale score	*r* = .02	*P* NS

Note. *n* = 17

Table 22 reports correlates of achievement of marriage or a stable relationship at follow-up. A greater duration of outpatient psychotherapy before the index hospitalization predicted achievement of marriage at follow-up, as did a longer follow-up interval. The latter finding may be an artifact of the reality that the likelihood of marriage increases with time. Achievement of marriage or a stable relationship at the index hospitalization had only a low correlation with achievement of marriage or a stable relationship at follow-up, again suggesting like does not predict like. On the other hand, the fact that

longer outpatient psychotherapy before index admission correlates with achievement of marriage or a stable relationship at follow-up may suggest that the ability to sustain a close therapeutic relationship earlier in life does predict the same kind of capacity later in life in patients with NPD.

Table 22. Correlates of good outcome in narcissistic personality disorder: achievement of marriage or stable relationship at follow-up

Achievement of marriage or stable relationship at follow-up: (6 patients, or 35%, achieved marriage or stable relationship)		
Better outcome associated with		
• Greater duration of outpatient psychotherapy before index hospitalization	*r* = .56	*P* = .02
• Longer follow-up interval	*r* = .47	*P* = .06
Marriage or stable relationship at index hospitalization	*phi* = .23	*P* NS

Note. *n* = 17

Table 23 shows correlates of good symptom outcome. Shorter index admission had the strongest correlation with good symptom outcome, followed by lower socioeconomic status at index hospitalization (that is, middle-class rather than upper-class status) and the presence of the BPD criterion of "impulsivity." Because satisfactory interrater agreement could not be achieved on the Strauss-Carpenter symptom scale at admission, it was not included in the study. It is thus not possible to examine the question of whether like predicts like along this symptom dimension or whether shorter

index admission was associated with fewer symptoms at admission.

Table 23. Correlates of good outcome in narcissistic personality disorder: symptoms

Symptoms: Strauss-Carpenter symptom scale score based on year before follow-up (mean ± SD 2.5 ± 0.9, range 1-4)		
Better outcome associated with		
• Shorter index admission (mean ± SD 16.7 ± 9.4 months, range 4-32)	*r* = -.65	*P* = .005
• Lower socioeconomic status at index hospitalization (Hollingshead-Redlich middle class > upper class)	*r* = .55	*P* = .02
• Presence of BPD DSM-III criterion A1 (impulsivity)	*r* = .55	*P* = .02

Note. *n* = 17

Table 24 reports correlates of good global functioning at follow-up. The strongest correlate was again middle-class rather than upper-class socioeconomic status at index admission *(r* = .65, *P* = .005). Shorter index hospitalization also had a relatively strong correlation with good global outcome, but here it is worth recalling that lower socioeconomic status intercorrelates with shorter index hospitalization (r = .52, *P* = .03), probably accounting for a significant portion of the correlation of shorter index hospitalization with good outcome. The absence of schizotypal "ideas of reference" also correlated with good global outcome. The correlation of higher GAS score at admission with GAS score at follow-up was quite low (r = .13, PNS). Several predictors of good functioning reported in BPD patients

were not particularly powerful predictors of good functioning in NPD patients, including shorter duration of prior hospitalization, the presence of a family history of parental divorce, and higher maximum IQ achieved during the index admission. This latter predictor of good outcome in BPD patients, high IQ, is reported by McGlashan (1985). The current sample of NPD patients has such a high mean IQ (124, see Table 11) that its potential value as a predictor is proportionately diminished. There was some suggestion that being male was mildly but not significantly correlated with better global functioning in NPD patients.

Table 24. Correlates of good outcome in narcissistic personality disorder: global functioning

Global functioning: Global Assessment Scale (GAS) score based on year before follow-up (mean ± SD 64.6 ± 11.9, range 44-82)

Better outcome associated with

• Lower socioeconomic status at index hospitalization (Hollingshead-Redlich middle class > upper class)	*r* = .65	*P* = .005
• Shorter index hospitalization (mean ± SD 16.7 ± 9.4 months, range 4-32) (Note: Intercorrelation between lower socioeconomic status and shorter index admission, r = .52 P = .03)	*r* = -.60	*P* = .01
• Absence of schizotypal DSM-III criterion A2 (ideas of reference)	*r* = -.42	*P* = .10
Higher GAS at admission	*r* = .13	*P* NS
Shorter duration of prior hospitalizations	*r* = .02	*P* NS
Higher maximum IQ achieved during index admission	*r* = .17	*P* NS
Being Male	*r* =	*P* NS

		-.38
Presence of family history of parental divorce	*r* = .12	*P* NS

Note. *n* = 17

It is sensible to consider not only how strong and how significant the correlation of a predictor with an outcome variable is, but also with how many different outcome dimensions a predictor correlates. If one looks across all seven outcome dimensions, the strongest predictor of outcome overall for NPD patients would appear to be middle-class rather than upper-class socioeconomic status at the time of the index admission, which correlated with good global *(r* = .65, *P* = .005), symptom *(r*= .55, *P* = .02) and social (r= .54, *P*= .02) outcome. Another apparently powerful predictor was shorter index hospitalization, which predicted good symptom *(r* = -.65, *P* = .005) and global (r = -.60, *P* = .01) outcome, but the substantial intercorrelation of this with socioeconomic status has already been noted. The absence of the schizotypal criterion for "suspiciousness or paranoid ideation" correlated with good hospitalization (r = .63, *P* = .009) and vocational *(r* = -.48, *P* = .05) outcome. The absence of schizotypal "ideas of reference" correlated with good global functioning. The latter three correlations suggest that paranoid traits may be especially prognostically ominous in NPD. The presence of BPD "impulsivity" correlated with good symptom (r = .55, *P* = .02) and social (r = .54, *P* = .03) outcome, suggesting that liveliness and affective availability augur well in NPD, but again the intercorrelation of "impulsivity" with lower

socioeconomic status must be kept in mind.

Being eldest in the sibship or an only child was associated with achievement of good intimate functioning (r= -.56, *P* = .02) and good vocational functioning (r = -.53, *P* = .03) at follow-up. This may suggest that greater focus of parental interest or attention or some other related factors associated with being eldest in a sibship or an only child mitigate some of the impairments that unfold later in patients predisposed to NPD temperamentally or dynamically.

In an as-yet unpublished study (Plakun 1988), a similar analysis of predictors of outcome in BPD has been performed. In BPD, the strongest correlate overall was a demographic background variable, the absence of a family history of parental divorce at the time of index admission, which correlated most highly with good vocational outcome *(r* = -.67, *P*= .001), but also significantly with global, social, and symptom outcome. In the only instance in which like predicted like, shorter duration of hospitalization before the index admission correlated significantly with shorter hospitalization during the follow-up interval (r = .51, *P* = .003). McGlashan (1985) also found that like predicted like in terms of hospitalization outcome in his sample of BPD patients. The absence of four personality disorder criteria was also moderately associated with good outcome in Plakun's (1988) study of correlates of outcome in BPD. The absence of NPD

"entitlement" correlated with good vocational, social, and global outcome. The absence of schizotypal "odd speech" correlated with good intimate functioning, and the absence of "recurrent illusions" was associated with less rehospitalization at follow-up. Perhaps most interesting of all, the presence of self-destructive acts during the index hospitalization was moderately correlated with good intimate functioning at follow-up *(r* = .45, *P* = .008) and with achievement of marriage or a stable relationship at follow-up (r = .36, *P* = .04).

In both NPD and BPD patients, demographic background variables are found to be strong predictors of outcome across multiple dimensions. In BPD, the absence of a history of parental divorce in 5 of 33 patients was associated with better outcome across four of seven dimensions. This suggests patients predisposed to BPD may be especially vulnerable to the stress associated with family conflict or divorce, to the interruption of a relationship with one parent, or to the loss of the opportunity provided by having two parents to unlearn splitting behaviors. In NPD patients, the rich may get richer, but the poor (or at least the middle class) get better. Perhaps this is entirely due to the intercorrelation effect of more moves, the absence of "impulsivity," and the longer index hospitalization with higher socioeconomic status in this sample of patients. The possibility that upper-socioeconomic-class children predisposed to NPD may have difficulty learning self-motivation because of the ready availability of material narcissistic supplies is also worth

considering. Review of charts of these high-socioeconomic-status poor-outcome patients shows a trend toward great reliance on nonparent caretakers in childhood, which may be relevant. Finally, greater stability and consistency in formative years as measured by fewer moves and being male and an oldest or only child seem assets to the patient at risk for NPD.

Unlike the case in schizophrenia, in BPD and NPD, demographic background variables are highly predictive of outcome. As was true in McGlashan's study, only in prediction of rehospitalization in BPD patients does like predict like. Premorbid social, sexual, vocational, or global functioning show little evidence of ability to predict these capacities at follow-up in BPD or NPD. Again at variance with outcome prediction in schizophrenia, such symptoms of the manifest illness as the presence or absence of specific personality traits appear to have significant predictive value for NPD patients, in whom paranoid trends are found to be particularly ominous, and for BPD patients, in whom narcissistic "entitlement," two schizotypal criteria, and BPD "emptiness or boredom" heralded poor outcome.

Finally, in BPD patients, the presence of self-destructive acts during intensive psychotherapy in a hospital setting was associated with good outcome. This was not true of self-destructive acts before the index admission. In NPD patients, the situation is equivocal, with self-destructive

acts during the index hospitalization being associated with poor social functioning, as indicated by fewer meetings with others, but more satisfaction with intimate relationships at follow-up. At least in BPD patients and perhaps in NPD patients, these findings provide empirical support for Winnicott's notion (1965) that, in the course of intensive psychotherapy, acting out that remains containable within the holding environment of the psychotherapy (which in this case includes the open hospital milieu) may be a hopeful sign of useful therapeutic engagement. The key may well be maintaining a psychotherapeutic focus on the behavior, while working with the transference and countertransference factors that are involved, rather than responding coercively or in an unwitting enactment of countertransference anger and hopelessness. It is this former approach that is the unique strength of long-term hospital settings offering intensive psychotherapy.

In conclusion, a cautionary note is appropriate. Although these findings suggest much about NPD and BPD, the samples are small and specialized. It would be premature to assume the findings can be generalized to outpatient or other inpatient samples, but they do indicate interesting and relevant directions for future research. At the very least, these data constitute a first step in exploring NPD empirically, providing evidence for the discriminative validity of BPD and NPD criteria, the validity of the NPD diagnosis, its similarities and differences with regard to BPD, and some empirical notion of predictors of outcome that can be scrutinized by clinicians, researchers, and

psychodynamic theoreticians.

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