Longitudinal comparison of depressive personality disorder and dysthymic disorder

John C. Markowitz
Andrew E. Skodol
Eva Petkova
Hui Xie
Jianfeng Cheng, et al.
Longitudinal comparison of depressive personality disorder and dysthymic disorder

John C. Markowitz\textsuperscript{a,*}, Andrew E. Skodola\textsuperscript{a}, Eva Petkova\textsuperscript{a}, Hui Xie\textsuperscript{a}, Jianfeng Cheng\textsuperscript{a}, David J. Hellerstein\textsuperscript{a}, John G. Gunderson\textsuperscript{b}, Charles A. Sanislow\textsuperscript{c}, Carlos M. Grilo\textsuperscript{c}, Thomas H. McGlashan\textsuperscript{c}

\textsuperscript{a}New York State Psychiatric Institute and Columbia University, New York, NY 10032, USA
\textsuperscript{b}McLean Hospital and Harvard Medical School, Belmont, MA 02478, USA
\textsuperscript{c}Yale Psychiatric Research Institute and Yale University, New Haven, CT 06519, USA

Received 27 May 2004; accepted 17 September 2004

Abstract

Background: Few studies have compared the related diagnostic constructs of depressive personality disorder (DPD) and dysthymic disorder (DD). The authors attempted to replicate findings of Klein and Shih in longitudinally followed patients with personality disorder or major depressive disorder (MDD) in the Collaborative Longitudinal Personality Disorders Study.

Methods: Subjects (N = 665) were evaluated at baseline and over 2 years (n = 546) by reliably trained clinical interviewers using semistructured interviews and self-report personality questionnaires.

Results: Only 44 subjects (24.6% of 179 DPD and 49.4% of 89 early-onset dysthymic subjects) met criteria for both disorders at baseline. Depressive personality disorder was associated with increased comorbidity of some axis I anxiety disorders and other axis II diagnoses, particularly avoidant (71.5%) and borderline (55.9%) personality disorders. Depressive personality disorder was associated with low positive and high negative affectivity on dimensional measures of temperament. Depressive personality disorder subjects had lower likelihood of remission of baseline MDD at 2-year follow-up, whereas DD subjects did not. The DPD diagnosis appeared unstable over 2 years of follow-up, as only 31% (n = 47) of 154 subjects who had DPD at baseline and also had follow-up assessment met criteria on blind retesting.

Limitations: Results from this sample may not generalize to other populations.

Conclusions: Depressive personality disorder and dysthymic disorder appear to be related but differ in diagnostic constructs. Its moderating effect on MDD and predicted relationship to measures of temperament support the validity of DPD, but its diagnostic instability raises questions about its course, utility, and measurement.

© 2005 Elsevier Inc. All rights reserved.

Nothing endures but change. —Heraclitus

1. Introduction

Depressive personality disorder (DPD) is a littoral condition on the diagnostic map of mental disorders. In the territory of chronic mood disorders, DPD abuts or overlaps dysthymic disorder (DD), presumably representing trait to its state. Depressive personality disorder also occupies marginal territory as a condition worthy of further study in the Appendix of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) [1], a placement reflecting controversy over its diagnostic validity. For years, experts have disputed whether DPD exists, and if so, what it defines.

The concept of depressive character has an ancient history, and both Kraepelin [2] and early editions of the DSM [3] used it. In 1980, however, DSM-III [4] replaced depressive character with the concept of DD, redefining it as a chronic affective disorder [5]. Many experts felt that this new construct would subsume DPD. Yet, subsequent research has demonstrated that although their diagnostic criteria overlap, the 2 conditions are not invariably comorbid. A significant percentage of patients who meet DD criteria do not qualify for DPD, and vice versa, suggesting the legitimacy of both diagnoses.

* Corresponding author. Tel.: +1 212 543 6283; fax: +1 212 746 5951. E-mail address: jcmrko@med.cornell.edu (J.C. Markowitz).
Several studies [3,6-10] have addressed this axis I/axis II border issue. The rates of overlap of DPD and DD have varied widely, from 18% to 95%, depending upon the sample of assessed subjects and the diagnostic criteria of the disorders [11]. Klein and Shih [9] notably assessed the relationship of DSM-III-R DPD and DD in 156 outpatients with mood and/or personality disorders and 267 first-degree relatives at baseline and 30-month follow-up. They used the Structured Clinical Interview for DSM-III-R [12] to measure axis I diagnoses, the Personality Disorders Examination [13] for axis II diagnoses, an adaptation of DPD criteria of Akiskal [14], and the revised Eysenck Personality Questionnaire [15] as a dimensional measure of depressive temperament.

Klein and Shih [9] described 89 subjects with DPD and 67 who did not meet that diagnosis. Nearly 80% (n = 71) of DPD subjects also met criteria for DSM-III-R dysthymia, whereas only 39% of non-DPD subjects met dysthymic criteria. Conversely, 73% of early-onset dysthymic subjects (total n = 97) met criteria for DPD. The study found a κ for the association of DPD with dysthymia of 0.42. The raters’ κ for diagnostic concordance on the International Personality Disorder Examination (IPDE) for DPD itself was 0.70. Test-retest intraclass correlation for number of DPD traits was 0.81. Depressive personality disorder was not significantly associated with current or lifetime major depressive disorder (MDD). Presence of DPD predicted slight increases in comorbidity of other axis II diagnoses, especially avoidant and borderline personality disorders. Klein and Shih found DPD traits correlated positively with neuroticism (ie, negative affectivity) and correlated negatively with extraversion (positive affectivity), but did not significantly correlate with psychoticism on the Eysenck scales.

In the Klein and Shih study, only 5 (8%) of 63 DPD subjects seen at 30-month follow-up, assessed by raters blind to initial assessment, still met diagnostic criteria for DPD. From the dimensional perspective of depressive personality traits, intraclass correlation across time points was 0.51. Presence of DPD at baseline predicted a higher Hamilton Depression Rating Scale (Ham-D; [16]) score at follow-up, even controlling for baseline Ham-D severity. The sample of 267 relatives yielded similar findings, and in this latter group, DPD predicted a subject’s likelihood of meeting criteria for a history of mood disorder, even after controlling for positive and negative affectivity.

McDermut et al [10] recently assessed 900 adult outpatients’ cross-sectionally using the Structured Clinical Interview for DSM-IV axis I Disorders (SCID [17]) for axis I and the Structured Interview for DSM-IV Personality [18] for axis II disorders. The investigators diagnosed 198 subjects with DPD, of whom 18.2% met criteria for DD, an elevated rate compared to subjects without DPD. Diagnostic concordance, on the basis of 28 paired interviews, showed a κ of 0.52. Subjects with DPD were more likely to receive axis I and axis II comorbid diagnoses than those without DPD. The most prevalent co-occurring axis II diagnoses were avoidant (43.4%), obsessive-compulsive (21.2%), and borderline (21.7%) personality disorders. Thirty-six (48%) of 75 DD subjects met DPD criteria. Subjects with DPD were more likely than others to have chronic MDD (59.8% vs 29.1%, P < .0001), but had no greater likelihood of bipolar spectrum disorders [10].

The ongoing multisite Collaborative Longitudinal Personality Disorders Study (CLPS) tracks the natural course of subjects with 1 of 4 personality disorders (schizotypal, n = 86; borderline, n = 175; avoidant, n = 156; or obsessive-compulsive, n = 154) or MDD without personality disorder (n = 94). Its large, well-diagnosed sample provides an opportunity to assess the relationship between DPD and DD. We used this sample to corroborate the findings of Klein and Shih using DSM-IV rather than DSM-III-R criteria. An early CLPS report (N = 571) found a 20.9% co-occurrence of DPD and DD [19].

This research also allowed assessment of the stability of the DPD diagnosis. Personality and its disorders historically have been considered largely immutable, developmentally determined human traits; they reside on axis II in part because of their presumed resistance to change relative to axis I disorders. Yet, research is increasingly showing that personality disorder diagnoses may remit with or without treatment (eg, Ref.[20]). Shea et al [21], analyzing data from the CLPS study group, reported that only 44% of subjects with schizotypal, borderline, avoidant, or obsessive-compulsive personality disorders retained these diagnoses at 12-month follow-up.

This study explored the following questions: (1) What is the association between DPD and DD in this sample? We hypothesized that diagnostic overlap between the disorders would be modest. (2) What is the association between DPD and other axis II diagnoses? We assumed that DPD would be highly associated with other axis II diagnoses, given that subjects who meet criteria for one personality disorder are likely to meet criteria for more than one. (3) What is the association between DPD and positive and negative affectivity? Consistent with previous research [6,9], we hypothesized that subjects would have high levels of negative affectivity and low levels of positive affectivity. (4) What is the stability of DPD? On the basis of Klein and Shih’s 30-month findings, we hypothesized that the DPD diagnosis would be unstable over time. (5) Does DPD moderate recovery from a major depressive episode? We hypothesized that the diagnosis of DPD at baseline would predict a lower rate of MDD remission at 2-year follow-up.

2. Methods

2.1. Subjects

The CLPS study sample comprises subjects aged 18 to 45 years, recruited at Brown, Columbia, Harvard, and Yale University medical schools, and diagnosed by experienced clinical interviewers trained to reliability on the SCID-I/P
[17] and the Diagnostic Interview for DSM-IV Personality Disorders (DIPD-IV [22]). The CLPS recruited subjects with 1 of 4 personality disorders—schizotypal, borderline, avoidant, or obsessive-compulsive—and subjects with MDD but no axis II diagnosis. The sample includes 179 subjects diagnosed with DPD and 115 diagnosed with DD. Although CLPS targeted 4 personality disorders, rates of diagnostic co-occurrence have been found to resemble other clinical samples [23].

2.2. Assessments

Subjects are followed longitudinally, rated after 6 months, 1 year, and 2 years, with serial assessments that include the DIPD and its follow-along version for axis II disorders [22], the SCID-I/P [17] at baseline and then the Longitudinal Interval Follow-up Evaluation (LIFE [24]) for axis I disorders, and the Schedule for Nonadaptive and Adaptive Personality (SNAP [25]) and NEO Personality Inventory-Revised (NEO-PI-R [26]) for dimensional personality traits. Raters were unaware of subjects’ prior diagnoses at the 2-year assessment. Raters asked subjects whether symptoms were present during the previous interval. After the DSM-IV criterion B for DPD, they had to judge whether the symptoms for DPD were better accounted for by DD ([11], p 733). κ for interrater reliability were 0.80 for MDD and 0.76 for DD on the SCID, and ranged from 0.58 to 1.0 for personality disorders on the DIPD-IV, including 0.62 for DD [27].

Several definitions of DPD and DD were used to investigate the sensitivity of the findings to differing constructs of the disorders. Depressive personality disorder was defined in 3 ways. “Definite” DIPD-IV criteria required meeting threshold criteria (rating = 2, “definitely present”) for 5 or more DIPD-IV items. A broader construct included both “definite” and “probable” (rating = 1, “subthreshold”) criteria. These approaches yielded 179 definite and 255 definite/probable subjects. A third analysis used a dimensional continuum by summing scores of the 7 DIPD-IV DPD symptom items, scored as 0 = absent, 1 = subthreshold, and 2 = threshold, yielding a range of 0 to 14. Dysthymic disorder was dually defined as the subset (n = 89) of dysthymic subjects who met SCID criteria for early onset DD (ie, before the age of 1 year), presumably defining dysthymic subjects with course and chronicity similar to DPD, and more broadly, as definite SCID DD, regardless of age of onset (n = 115).

2.3. Analyses

The association between DPD and DD, and between DPD and other axis II diagnoses, was assessed using κ and χ² tests for independence. The association between DD and the continuous DPD measure was analyzed by t test. To assess affectivity measures as predictors of DPD diagnosis, presence or absence of DPD was modeled as a function of SNAP positive and negative affectivity and NEO extraversion and neuroticism using univariate and multiple logistic regression. Significance of the factors is assessed with Wald’s test, and in all instances is compared to χ² distribution with 1 degree of freedom. The stability of DPD from baseline to year 2 diagnosis, on the basis of the dichotomous measures of DPD, was assessed using the κ statistic, adjusting for rater error on the basis of immediate test-retest reliability [27]. Intraclass correlation coefficient (ICC) represented the stability of the continuous DPD measure. Dysthymic disorder was measured at baseline by SCID, and by retrospective ratings at follow-up interviews by the LIFE [24]. Dysthymic symptoms must be present more often than not over a 2-year period to qualify for the diagnosis. In different analyses, we deemed subject reports of dysthymic symptoms 80% of the time over the 2 years, and more liberally, 50% of the time, as criteria for persisting DD.

The effect of DPD and DD on remission of a baseline major depressive episode at 2-year follow-up was assessed using Cox proportional hazards models [28], modeling remission as a function of baseline DPD and DD diagnoses and their interaction. In addition, the effect of DPD diagnosis was assessed after accounting for other axis II diagnoses. In the absence of significant interaction, inferences are based on the models with only main effects. Significance of the effects is based on Wald’s test. Remission from MDD was defined by a rating of 2 or less (1 or 2 symptoms of mild degree with no impairment in functioning) for 8 consecutive weeks on the weekly “psychiatric status ratings” for MDD in the LIFE [24]. Raters score these symptoms retrospectively at each study assessment, cueing subject responses by asking about symptoms around holidays and other milestones during the interval. Only subjects diagnosed with an MDD episode at baseline who had available follow-up data (n = 294) were included in this analysis.

Because these analyses addressed specific prespecified questions, no correction for multiple comparisons was applied.

3. Results

The CLPS sample has been described previously (eg, [19,21,23,27]). Table 1 indicates that subjects with DPD were mainly female, White, with mean 31.6 (SD, 8.2) years, characteristics similar to non-DPD subjects in the sample. Compared to other subjects in the CLPS cohort, DPD subjects did not differ in gender or race, but were 1.6 years younger (t = 2.22, df = 663, P = .03).

3.1. Diagnostic overlap of DPD and DD

Data were available on 665 CLPS subjects, of whom 179 met definite DIPD criteria for DPD and 89 met criteria for early onset DD. Diagnostic overlap was relatively modest: only 44 subjects, representing 24.6% of subjects with DPD and 49.4% of subjects with DD, met criteria for both
definite DIPD-IV DPD and early-onset DD \( (\kappa = 0.18; \chi^2 = 26.5, df = 1, \text{both } P < .0001) \). The alternative definitions of DPD and DD described above did not alter these fundamental relationships, showing marginally lower statistical associations. For example, for definite DPD criteria and DD of any age of onset \( (n = 115) \), \( \kappa = 0.16, \chi^2 = 19.4, df = 1 \) (both \( P < .001 \)). A t test with unequal variances to compare subjects with and without early-onset DD with respect to the continuous DPD measure was significant \( (t = -6.77, df = 146, P < .001) \): early-onset DD subjects scored a mean 10.9 (SD, 2.9) and non-DD subjects a mean 8.5 (SD, 4.0) of a total possible score of 0 to 14 for 7 DPD items.

### 3.2. Comorbidity of DPD with other axis II disorders

Assessing other axis II comorbidity using definite DIPD-IV diagnoses yielded statistically significant associations of DPD with 9 of the 11 axis II diagnoses, excepting only narcissistic and obsessive-compulsive personality disorders. Table 2 presents the proportion of subjects with personality disorders among subjects with and without definite DPD. As in the study of Klein and Shih [9] and similar to that of McDermut et al [10], DPD had strongest comorbidity with avoidant (71.5%) and borderline (55.9%) personality disorders. Results using definite or probable DPD were similar (available upon request).

We also examined axis I comorbidity of DPD and DD subjects. Neither diagnosis was associated with an increased prevalence of lifetime MDD relative to the remainder of the CLPS cohort (DPD = 78%, DD = 82%, others = 78%). Depressive personality disorder subjects had elevated lifetime rates of bipolar II disorder (7.3% vs 4.2% for the cohort, \( P < .02 \)), panic disorder (32.4% vs 26.2%, \( P < .03 \)), social phobia (33.0% vs 22.9%, \( P = .001 \)), and anorexia nervosa (9.5% vs 6.0%, \( P = .02 \)), whereas dysthymic subjects did not.

### 3.3. Positive and negativity affectivity

As hypothesized, definite DPD was associated with lowered levels of positive affectivity (DPD mean, 11.96; non-DPD mean, 13.77; \( t = 3.20, df = 668, P = .001 \)) and elevated negative affectivity (DPD mean, 21.89; non-DPD mean, 18.98; \( t = 6.01, df = 408, P < .0001 \)) on the SNAP. Interestingly, no significant difference appeared on the NEO for extraversion as an analog of positive affectivity or neuroticism as a measure of negative affectivity. Multiple logistic regression modeling presence or absence of DPD as a function of both positive and negative affectivity confirmed these analyses. The odds of having a DPD diagnosis increased as negative affectivity increased (Wald = 21.7, \( P < .0001 \)) and positive affectivity decreased (Wald = 4.98, \( P < .02 \)).

---

### Table 1

Demographics of subjects with and without DPD

<table>
<thead>
<tr>
<th></th>
<th>Subjects with DPD</th>
<th>Subjects without DPD</th>
<th>All subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean)*</td>
<td>179 (31.6 (SD, 8.2); range, 18-45)</td>
<td>486 (33.2 (SD, 8.0); range, 18-45)</td>
<td>665 (32.8 (SD, 8.1))</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>110 (61.5)</td>
<td>312 (64.2)</td>
<td>422 (63.5)</td>
</tr>
<tr>
<td>Male</td>
<td>69 (38.6)</td>
<td>174 (35.8)</td>
<td>243 (36.5)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Euro-American</td>
<td>129 (72.1)</td>
<td>377 (77.6)</td>
<td>506 (76.1)</td>
</tr>
<tr>
<td>African American</td>
<td>24 (13.4)</td>
<td>54 (11.1)</td>
<td>78 (11.7)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>21 (11.7)</td>
<td>40 (8.2)</td>
<td>61 (9.2)</td>
</tr>
<tr>
<td>Asian</td>
<td>4 (2.2)</td>
<td>9 (1.9)</td>
<td>13 (2.0)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (0.6)</td>
<td>6 (1.2)</td>
<td>7 (1.1)</td>
</tr>
</tbody>
</table>

\* \( t = 2.22, P = .027 \).

---

### Table 2

Comorbidity of DPD with other axis II diagnoses at baseline

<table>
<thead>
<tr>
<th>Axis II diagnosis</th>
<th>DPD present (%)</th>
<th>DPD absent (%)</th>
<th>( \chi^2 ) (df = 1)</th>
<th>Odds ratio (95% CI)</th>
<th>( \kappa )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paranoid</td>
<td>22.4</td>
<td>8.4</td>
<td>24.2 (( P &lt; .0001 ))</td>
<td>3.16 (1.96-5.08)</td>
<td>0.17</td>
</tr>
<tr>
<td>Schizotypal</td>
<td>20.0</td>
<td>12.0</td>
<td>5.43 (( P &lt; .02 ))</td>
<td>1.71 (1.09-2.70)</td>
<td>0.08</td>
</tr>
<tr>
<td>Schizoid</td>
<td>5.6</td>
<td>1.6</td>
<td>7.9 (( P &lt; .005 ))</td>
<td>3.57 (1.39-9.20)</td>
<td>0.06</td>
</tr>
<tr>
<td>Histrionic</td>
<td>3.91</td>
<td>1.22</td>
<td>4.9 (( P = .03 ))</td>
<td>3.29 (1.09-9.93)</td>
<td>0.04</td>
</tr>
<tr>
<td>Borderline</td>
<td>55.9</td>
<td>28.7</td>
<td>42.0 (( P &lt; .0001 ))</td>
<td>3.14 (2.21-4.48)</td>
<td>0.24</td>
</tr>
<tr>
<td>Narcissistic</td>
<td>6.15</td>
<td>5.09</td>
<td>0.29 (( P = 6 ))</td>
<td>1.22 (0.59-2.54)</td>
<td>0.01</td>
</tr>
<tr>
<td>Antisocial</td>
<td>12.9</td>
<td>5.3</td>
<td>11 (( P = .0009 ))</td>
<td>2.64 (1.46-4.76)</td>
<td>0.10</td>
</tr>
<tr>
<td>Avoidant</td>
<td>71.5</td>
<td>39.7</td>
<td>53.1 (( P &lt; .0001 ))</td>
<td>3.81 (2.63-5.52)</td>
<td>0.25</td>
</tr>
<tr>
<td>Dependent</td>
<td>14.5</td>
<td>4.7</td>
<td>18.7 (( P &lt; .0001 ))</td>
<td>3.46 (1.92-6.24)</td>
<td>0.13</td>
</tr>
<tr>
<td>Obsessive/compulsive</td>
<td>44.7</td>
<td>36.7</td>
<td>3.6 (( P = .06 ))</td>
<td>1.40 (0.99-1.98)</td>
<td>0.07</td>
</tr>
<tr>
<td>Passive/aggressive</td>
<td>17.9</td>
<td>4.7</td>
<td>30.3 (( P &lt; .0001 ))</td>
<td>4.43 (2.51-7.81)</td>
<td>0.17</td>
</tr>
</tbody>
</table>
$P < .03$) on the SNAP. Controlling for the potential confounding variables of avoidant and borderline personality disorders, the 2 most prevalent comorbid axis II diagnoses, did not affect the significance of these findings.

A comparable analysis of subjects with early-onset DD similarly found lower positive affectivity (mean, 11.26 vs 13.06; $t = 3.17$, $df = 676$, $P = .001$) and higher negative affectivity ($21.30$ vs $19.53$; $t = 2.45$, $df = 676$, $P = .01$) for these subjects relative to the larger cohort.

3.4. Diagnostic stability of DPD

Both $\kappa$ and ICCs were used to assess the stability of DPD diagnosis from baseline to 2-year follow-up. Follow-up data were available for 547 subjects. Using the definite DPD definition, $\kappa$ equaled 0.29 ($P < .0001$). Diagnostic stability needs to be adjusted for rater reliability on the basis of immediate test-retest reliability; incorporating the immediate test-retest coefficient of 0.62 [27], the adjusted 2-year $\kappa$ was 0.47 (see Table 3.) Using the dimensional measure of DPD criteria to compare baseline and 2-year ratings, the ICC was 0.41 ($P < .0001$; adjusting for rater reliability $r = 0.71$, adjusted ICC = 0.57); there was a decrease of 2.85 DPD symptom items over 2 years. Table 4 indicates that only 47 (31%) of 154 subjects who initially met DIPD-IV criteria for DPD at baseline retained that diagnosis at 2-year follow-up, whereas 25 (6.4%) of 392 subjects without baseline DPD received a definite DPD diagnosis from blind raters 2 years later.

By comparison, early-onset DD was stable in 45.3% (34/75) of subjects ($\kappa = 0.17$; adjusted for immediate test-retest coefficient of .35, adjusted 2-year $\kappa = 0.49$) using a criterion of ongoing dysthymic symptoms 80% of the time, and in 57.5% (46/80; $\kappa = 0.11$; adjusted 2-year $\kappa = 0.31$) using the criterion of 50% of the time.

3.5. Effect of DPD and DD on remission of MDD

Survival analysis using a Cox-proportional hazards model indicated that subjects with baseline MDD ($n = 294$) who met baseline criteria for definite DPD at baseline had lower hazard of having MDD remit at 2 years, whereas subjects with early onset DD did not. The ratio of the hazard for MDD remission in the 2-year follow-up among subjects with baseline DPD relative to subjects without baseline DPD was 0.67 [95% confidence interval (CI) (0.54, 0.84), Wald = 12.07, $P < .001$]; that is, subjects with baseline DPD had a 33% lower likelihood of remission than subjects without baseline DPD. This finding remains significant after controlling for avoidant [hazard ratio 0.70, 95% CI (0.56, 0.86), Wald = 10.72, $P = .001$] and borderline [hazard ratio 0.74, 95% CI (0.59, 0.91), Wald = 8.05, $P = .005$] personality disorders. By contrast, dysthymic subjects with baseline MDD carried no heightened risk for nonremission [hazard ratio 1.25, 95% CI (0.93, 1.66), Wald = 2.2, $P = .14$].

4. Discussion

This study attempted to replicate the baseline and longitudinal findings of Klein and Shih [9] in a large cohort of patients with personality and mood disorders, using DSM-IV criteria. The CLPS data provide important confirmation of previous comparisons of DPD and DD, but also meaningful differences from earlier studies. Whereas Klein and Shih selected patients for a family study of mood disorder, and McDermut et al assessed a community sample, CLPS subjects were chosen for a study of personality disorders.

Only a minority of CLPS subjects met criteria for both DPD and DD. A quarter of subjects meeting DPD criteria also qualified for DD, and about half of DD subjects met DPD criteria. This result suggests that these are related but different diagnostic entities. It is interesting that raters gave both diagnoses as often as they did despite the DPD (and DSM-IV) exclusion criterion that DPD “is not better accounted for by dysthymic disorder” ([1], p 733). In contrast, Klein and Shih reported that nearly 80% of DPD subjects had DD, and 73% vice versa. The $\kappa$ of 0.18 for association of the 2 diagnoses in the current study contrasts with a $\kappa$ of 0.42 in Klein and Shih’s report.

The surprising instability of DPD in this study is perhaps lessened when compared to changes in other diagnoses reassessed over time. Shea et al [21] reported that only 44% of CLPS subjects with schizotypal, borderline, avoidant, or obsessive-compulsive personality disorders retained these diagnoses at 12-month follow-up. As they and other authors have noted, diagnostic stability has been presumed central to the concept of personality disorder, yet few data address this question. Klein and Shih [9] reported $\kappa = 0.37$ for DPD, with 49% of baseline subjects meeting criteria and 10% developing a new diagnosis at 30 months. These are similar to the $\kappa = 0.47$ and 31% stability at 24 months in this study, even though the IPDE requires a 5-year duration for personality disorders, whereas the DIPD assesses a 2-year interval. In a smaller

Table 3

|$\kappa$ and ICCs for DPD and DD |
|---|---|---|
|Diagnosis | $\kappa$/ICC | Adjusted $\kappa$/ICC |
|DPD | Categorical (definite) | $0.29$/$0.62$ | $0.29/0.62 = 0.47$ |
|Dimensional | $0.41$ | $0.72$ | $0.41/0.72 = 0.57$ |
|Dysthyic disorder | 80% of time | $0.17$ | $0.35$ | $0.17/0.35 = 0.49$ |
|50% of time | $0.11$ | $0.35$ | $0.11/0.35 = 0.31$ |

DD is defined by symptoms 80% of time and 50% of time.

Table 4

<p>| Stability of DPD* over 2 years |
|---|---|</p>
<table>
<thead>
<tr>
<th>Baseline DPD</th>
<th>DPD at year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>367</td>
</tr>
<tr>
<td>Yes</td>
<td>107</td>
</tr>
<tr>
<td>Total</td>
<td>474</td>
</tr>
</tbody>
</table>

* “Definite” DPD defined as definite as rated on the DIPD-IV.
study, which recruited subjects specifically for DPD by referral and newspaper advertisement, Phillips et al [29] reported $\kappa = 0.55$ and ICC = 0.62 at 1-year follow-up using the DIPD.

Similarly, despite using different instruments, Klein et al found that DD remained stable in 52% of 86 early-onset dystymic outpatients blindly rated at 30 months [30] and 53% followed for 5 years [31]. In our cohort, 45% to 58% of dystymic subjects (depending on symptom frequency) maintained their diagnosis over 2 years. This is striking for an axis I diagnosis largely defined by chronicity, and often reportedly lingering for decades.

Table 3 indicates that the differences in stability between DPD and DD do not depend on their respective $\kappa$’s, which lie not far apart. Yet, the proportions of subjects retaining the diagnoses after 2 years may offer a clinically meaningfully difference: 31% for DPD vs 45% to 58% for DD. Neither diagnosis proved particularly stable over time.

If DPD, DD, and other reputedly chronic diagnoses are not stable, what does DPD mean, and what is its clinical utility? Perhaps we have held the concepts of personality and personality disorder to too rigid a standard of constancy. All longitudinal studies show declines in diagnostic rates over time (eg, Refs. [32,33]). Although instrument insensitivity, rater variability, patient recall, and interval treatment might partially account for this diagnostic instability, actual symptom fluctuation may explain much of the variance. Is it unreasonable to expect a similar degree of fluctuation in a personality disorder as in panic disorder, mood syndromes, hypertension, or systemic lupus erythematosus? Patients age and mature. They may experience periods of quiescence, or rebound with “fresh starts” in response to positive life events [34]. It may be unreasonable to expect that even an individual meeting chronic criteria for a personality disorder will always feel and behave identically. More plausibly, personality disorders, like other chronic syndromes, may be intermittent, episodic, and spontaneously remitting in some cases. For patients given this gloomy diagnosis, it is a hopeful sign that even long ingrained patterns may change.

Many personality disorders are defined by observable behaviors rather than personality traits: for example, self-mutilation as a criterion for borderline personality disorder. Such behaviors may fluctuate over time, sometimes occurring only occasionally; this might arguably account for diagnostic instability of personality disorders even if underlying personality organization remained unchanged. Yet, DPD is defined principally by traitlike rather than behavioral criteria (eg, gloominess, pessimism, self-criticism, feelings of inadequacy). Thus, the finding of diagnostic instability does not appear to derive from the nature of DPD symptom criteria.

The current findings add to the growing literature indicating that DD and DPD are distinguishable syndromes. The utility of DPD is suggested by its defining a population that differs from early-onset DD, and its prediction of the persistence of MDD at 2-year follow-up. This latter finding is consistent with Klein and Shih’s finding of elevated Ham-D scores in patients with DPD over time, and provides a curious contrast to DD, which might have been expected to worsen mood prognosis [35]. This study does not answer the question of whether DPD is a personality or a mood disorder [36,37].

This study found that DPD, like DD, was associated with high levels of negative and low levels of positive affect. Such an affective state would seem almost to define DPD. Curiously, these findings were evident on the SNAP but not on the NEO Personality Inventory-Revised neuroticism and extraversion measures, which approximate negative and positive affectivity. Because neuroticism has been shown to characterize most personality disorders [38], insufficient variance in neuroticism scores in this sample of predominantly personality-disordered subjects may account for this negative result.

The high comorbidity of DPD with other personality disorders, particularly borderline and avoidant personality disorders, echoes the findings of Klein and Shih [9] and McDermut et al [10]. The high comorbidity in this sample may reflect the personality-disordered entry criteria for the CLPS study. For example, 26% of CLPS subjects met criteria for borderline personality disorder, compared to an estimated 10% prevalence among psychiatric outpatients generally [1,39]. The comorbid prevalence of these personality disorders appears still higher for patients with DPD than the already high rates associated with DD [40].

This research has several strengths, including a large patient sample and highly trained raters who were blind both to baseline diagnosis and to this study’s hypotheses. It is only the second study to examine DPD longitudinally. The study also has limitations. It assessed for chronic mood syndromes a sample of convenience that may not be generalizable to other clinical samples. It may be considered both a strength and weakness of the current study that its sample was gathered without intent to study DPD per se. Klein and Shih’s longitudinal sample was recruited for a family study and included proband outpatients with DSM-III-R dysthymia, nonchronic major depression, and cluster B personality disorders, but no mood disorders—to some degree, the inverse of the CLPS sample. It is encouraging that these differing samples yielded convergent results.

Acknowledgments

This study was supported in part by an Independent Investigator Award from the National Association for Research on Schizophrenia and Affective Disorders (NAR-SAD) (Markowitz), and National Institute of Mental Health grants R01 MH 50837, 50838, 50839, 50840, 50850, and K05 MH 01654 (McGlashan).

This publication has been reviewed and approved by the Publications Committee of the Collaborative Longitudinal Personality Disorders Study.
References


