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Personality Disorders and Mood Disorders: Perspectives on Diagnosis and Classification from Studies of Longitudinal Course and Familial Associations

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A recurring theme in clinical differential diagnosis and in psychiatric nosology is the relationship between certain personality disorders and mood disorders. Because these classes of disorders share major phenomenological features and frequently co-occur, it is often difficult to disentangle when a diagnosis of either type of disorder is sufficient for describing and understanding a patient's psychopathology and impairments and when a diagnosis of each type (i.e., "comorbidity") is more informative. Although some researchers and theoreticians have argued that personality disorders are simply more chronic versions of mood disorders (Akiskal, 1981), since DSM-III, these two classes of disorders have been diagnosed on separate axes of the DSM multiaxial system. This diagnostic convention implies distinctiveness of at least some aspects of the disorders, justifying their joint diagnosis in some cases. In the likely event that DSM-V will not have a multiaxial system or will, at least, have personality disorders on the same diagnostic axis as mood disorders, the distinctions between them may become even thornier issues, and new nosological conventions will be needed to guide differential diagnosis.

Furthermore, in *A Research Agenda for DSM-V*, Kupfer and colleagues (Kupfer, First, & Regier, 2002) argued that the categorical approach to the diagnosis of mental disorders needed reexamination. No laboratory marker has been found to be specific for any DSM-defined syndrome. Epidemiologic and clinical studies show high rates of co-morbidity within and across axes, and short-term diagnostic instability. And a lack of treatment specificity for individual disorders is the rule rather than the exception. Whether mental

disorders should be represented by sets of dimensions of psychopathology, rather than by multiple categories, was identified as one of seven basic nomenclature issues needing clarification for DSM-V. Rounsaville and colleagues (Rounsaville, Alarcon, Andrews, Jackson, Kendell, & Kendler, 2002) elaborated: “There is a clear need for dimensional models to be developed and their utility compared with that of existing typologies in one or more limited fields, such as personality. If a dimensional system performs well and is acceptable to clinicians, it might be appropriate to explore dimensional approaches in other domains” (p 13). Thus, personality disorders have become a “test case” for dimensional approaches to the diagnosis of mental disorders in DSM-V. Dimensions of psychopathology that cut across traditional categories offer one way to capture the myriad presentations of mental disorder and variations among patients, which in a categorical system typically result in multiple, “comorbid” diagnoses.

Since the seminal article by Robins and Guze (1970) on methods for the validation of schizophrenia, longitudinal course and family studies have been time-honored approaches for researchers to study the validity of and relationships between mental disorder diagnoses. Although some of the original expectations of homogeneous longitudinal courses for valid diagnostic entities have proven to be overly simplistic, the study of longitudinal course has nonetheless provided valuable information on the evolution of psychopathology over time for both treating clinicians and researchers looking for the true phenotypic expressions of psychopathology. Likewise, the assumption that mental disorders would “breed true” in families has proven more difficult to confirm empirically than originally anticipated. Still, family studies also have shed light on risk for and core components of major mental disorders. In this paper, we review research from longitudinal and family studies that illuminate the relationships between personality disorders and mood disorders. Evidence is beginning to converge to support hypotheses about the nature of shared and distinctive features of personality disorders and mood disorders that may inform new conceptualizations and a classification of these disorders that promises to be more clinically useful and more fruitful in guiding research on pathogenesis and etiology.

LONGITUDINAL COURSE

Personality disorders have been diagnosed (along with mental retardation) on a separate axis from other mental disorders ever since the creation of a multiaxial diagnostic format for the DSM-III in 1980. Originally, the rationale for disorders on Axis II was to insure that they would be considered in the comprehensive diagnostic evaluation represented by the five-axis system. In DSM-III-R, the stated rationale for Axis II disorders changed: they were believed to “begin in childhood or adolescence and persist in stable form (without periods of remission or exacerbation) into adult life” (American Psychiatric Association, 1987, p. 16). The rationale for Axis II was changed again in DSM-IV to ensure that “consideration will be given to the possible presence of Personality Disorders ... that might otherwise be overlooked when attention is directed to the usually more florid Axis I disorders” (American Psychiatric Association, 1994, p. 26), language reminiscent of the original wording in DSM-III.

Despite these shifts back and forth on the rationale for Axis II, the definition of personality disorder in DSM-IV (and DSM-IV-TR) continues to reflect the traditional view of personality disorders as enduring and stable over time. Criterion A of the general diagnostic criteria for a personality disorder in DSM-IV-TR refers to “an *enduring* pattern of inner experiences and behavior ... manifested in cognition, affectivity, interpersonal functioning, or impulse control.” Criterion B states that “the *enduring* pattern is inflexible and pervasive.” Criterion C requires that “the *enduring* pattern leads to clinically significant distress or impairment in ... functioning.” Criterion D states that the “pattern is stable and of long duration.” Criteria E and F indicate that “the *enduring* pattern is not better accounted for as a manifestation ... of another mental disorder” nor “due to ... a substance or a general medical condition.” (American Psychiatric Association, 2000, p. 689).

Thus, the notion of personality disorders as stable disorders to be distinguished from the more episodic mental disorders diagnosed on Axis I, such as mood disorders, has persisted despite a large number of traditional follow-up studies in the DSM-III and DSM-III-R eras that showed that less than 50% of patients diagnosed with personality disorders retained these diagnoses over time (Grilo & McGlashan, 1999; Grilo, McGlashan, & Oldham, 1998; McDavid & Pilkonis, 1996; Paris, 2003; Perry, 1993; Zimmerman, 1994). These studies, however, had substantial methodological problems that preclude firm conclusions from being drawn from them including small sample sizes, unstandardized diagnostic assessments, inattention to establishing inter-rater reliability, lack of “blindness” to baseline diagnoses, reliance on only two assessment time points, typically short follow-up periods, insufficient characterization of co-occurring disorders and of treatment received, focus almost exclusively on either borderline or antisocial personality disorders, and lack of relevant comparison groups (Skodol, 2008).

Because of the limitations of these studies and the constraints they placed on conclusions to be drawn about the natural history of personality disorder psychopathology, a new generation of rigorous follow-along studies was spawned (see below). The purpose of these studies has been to examine the short- and long-term course and impact of personality psychopathology and to determine what about personality disorders is stable.

In contrast to personality disorders, mood disorders are thought to vary in duration and historically have been considered “episodic” (Shea & Yen, 2003). Characteristics of mood disorders are described in terms of “signs” and “symptoms,” consistent with the disease model of medicine. While some diseases may become chronic, symptoms are typically considered to be transient indicators of illness that improve or fluctuate over time. Thus, the construct of mood disorder from the perspective of clinical course is quite different from the construct of personality disorder, if the latter are conceptualized as life-long, enduring patterns. Similarly, chronicity in functional impairment is presumed to be essential for personality disorders, since their diagnosis requires an evaluation of an individual’s long-term patterns of functioning (American Psychiatric Association, 2000). Although impairment in psychosocial functioning is also associated with mood disorders, it is not presumed to be chronic.

While temporal stability as a distinguishing feature between personality disorders and mood disorders may have conceptual appeal, many Axis I disorders are often chronic. Schizophrenia and dysthymic disorder, for example, are chronic mental disorders by definition. Clearly the limits of temporal stability as a distinctive feature have been recognized, but personality disorders, nonetheless, have continued to be considered more stable over time than mood disorders. Actual comparisons of the stability of personality disorders and mood disorders have been limited in part by the nature of their definitions. Since personality disorders are defined as stable, assessment measures typically require that criteria be present over long periods of time. Assessment of change, for the same reason, has not been a major focus of measures of personality disorders, unlike mood disorders.

Three Naturalistic Studies of Clinical Course in Personality Disorder

The results of three large-scale studies of the naturalistic course of personality disorders will be reviewed in this paper. The three studies are The Collaborative Longitudinal Personality Disorders Study (CLPS) (Gunderson, Shea, Skodol, McGlashan, Morey, Stout, et al., 2000; Skodol, Gunderson, Shea, McGlashan, Morey, Sanislow, et al., 2005), The McLean Study of Adult Development (MSAD) (Zanarini, Frankenburg, Hennen, Reich, & Silk, 2005), and The Children in the Community Study (CICS) (Cohen, Crawford, Johnson, & Kasen, 2005). Course and outcome in these studies has been examined in several different ways: in this paper results on diagnoses; criteria, symptoms, or traits; psychosocial functioning; and course of co-occurring Axis I disorders will be described. The studies were conducted on patient (CLPS and MSAD) and community (CICS) populations.

Collaborative Longitudinal Personality Disorders Study (CLPS)—The CLPS (Gunderson et al., 2000; Skodol et al., 2005) is a multisite, NIMH-funded longitudinal study of the natural course of personality disorders. Participating sites are at Brown, Columbia (now in collaboration with the Sunbelt Collaborative and the University of Arizona), Harvard, Yale, and Texas A&M Universities. The aims of the CLPS have been to determine the stability of personality disorder diagnoses and criteria, personality traits, and functional impairment, and to determine predictors of clinical course. The original CLPS sample recruited 668 treatment-seeking or recently treated patients who were diagnosed with one of four DSM-IV personality disorders – schizotypal (STPD), borderline (BPD), avoidant (AVPD), or obsessive-compulsive (OCPD) – or with major depressive disorder (MDD) and no personality disorder. This original sample was supplemented with the recruitment of 65 additional minority patients to ensure adequate power to test differences between Caucasian, African-American, and Hispanic patients with the four personality disorders on various outcomes. The original CLPS sample has completed its 10th year of follow-up.

To provide more detailed data on persistence vs. change in personality disorder criteria and diagnoses, the semi-structured interview used to make intake diagnoses, the Diagnostic Interview for Personality Disorders-IV (Zanarini, Frankenburg, Sickel, & Yong, 1996), was modified in the CLPS to provide monthly ratings of individual criteria for each of the four disorders under study. This approach was based on the method used in the Longitudinal Interval Follow-up Evaluation [LIFE; (Keller et al., 1987)], resulting in similar ratings of the course of both personality disorders and Axis I disorders that are continuous in terms of time

and the level of symptoms/criteria. The method allows determination of various definitions of improvement or remission. The LIFE is the central measure of course used in the most comprehensive longitudinal study to date of mood disorders, the Collaborative Depression Study [CDS; (Katz & Klerman, 1979)]. The similarity of methods allows a comparison of the stability and course of the four CLPS personality disorders with that of several mood disorders. A primary question has been whether personality disorders are more diagnostically stable than mood disorders.

The McLean Study of Adult Development (MSAD)—The MSAD (Zanarini, Frankenburg, Hennen, Reich, & Silk, 2005) was the first NIMH-funded prospective study of the course and outcome of borderline personality disorder. The MSAD sample consists of 290 patients with borderline personality disorder who were inpatients at McLean Hospital in the early 1990s and 72 other inpatients who were diagnosed with other personality disorders. This comparison group included approximately 4% with cluster A personality disorders, 18% with other non-borderline cluster B personality disorders, 33% with cluster C personality disorders, and 53% with personality disorder not otherwise specified (PDNOS). The sample has been followed every 2 years for more than 12 years.

The Children in the Community Study (CICS)—The CICS (Cohen, Crawford, Johnson, & Kasen, 2005) is a longitudinal study of a sample of approximately 800 children, who were originally recruited (with their mothers) in upstate New York in 1975, when they were between 1 and 10 years of age. They have been followed now periodically for 30 years. Originally, the study was designed to assess level of need for children's services in the community. When first followed-up in 1983, the focus of the study shifted to predictors of Axis I disorders in early adolescence, but an interest in the development of personality disorders in this age group also existed. Using various methods, personality disorders have been assessed four times: in 1983, when the children were at mean age 14; between 1985–1986, when they were at mean age 16; between 1991–1993, at mean age 22; and between 2001–2004, at mean age 33.

The Collaborative Depression Study—For comparisons of diagnostic stability, we summarize the findings the Collaborative Depression Study [CDS; (Katz & Klerman, 1979)], a multi-site naturalistic study of the longitudinal course of mood disorders. The initial sample included 955 patients with a mood disorder seeking psychiatric treatment at one of five clinical sites across the country. The Schedule for Affective Disorders and Schizophrenia (Endicott & Spitzer, 1978) and the Research Diagnostic Criteria (Spitzer, Endicott, & Robins, 1978) were used for the initial baseline diagnoses. Participants were then assessed at six-month intervals over the subsequent years using the LIFE. The LIFE follows multiple Axis I disorders, generating weekly ratings using a quantitative scale of severity of symptoms referred to as Psychiatric Status Ratings (PSRs) for each separate disorder (Keller et al., 1987). Recovery is defined as the first week of 8 consecutive weeks at a PSR of 1 (no symptoms) or 2 (1 or more symptoms in no more than mild degree) (Keller et al., 1992).

Course of Personality Disorder Diagnoses, Symptoms, and Criteria

Concepts of “remission” or “recovery” are typically associated with Axis I disorders, where these terms are often used interchangeably. A distinction between the two (Frank et al., 1991) is that remission refers to a relatively brief period during which the individual has improved to the point of having no more than minimal symptoms. A “recovery,” in contrast, can last for an indefinite period, and implies recovery from the episode of psychopathology. The idea of “remission” or “recovery” has been less applicable to the field of personality disorders, again due to the presumption of stability. Most follow-up studies have reported retention of the PD diagnosis as a measure of outcome. In the CLPS, two definitions of remission have been used to allow contrasts between the courses of personality disorders and a comparison group of major depression without personality disorder (Grilo, Shea, Sanislow, Skodol, Gunderson, Stout et al., 2004; Shea, Stout, Gunderson, Morey, Grilo, McGlashan, et al., 2002). Similar to the CDS, one definition requires at least 2 consecutive months (parallel to 8 weeks) with no more than two criteria (parallel to PSRs of 1–2) present. A longer time interval of 12 consecutive months with no more than 2 criteria has also been used (Grilo et al., 2004). CLPS uses the term “remission,” rather than “recovery,” for personality disorders because the idea of recovery from personality disorders over a period as short as eight weeks is inconsistent with their conceptualization. The 2-month definition allows for a direct comparison of personality disorder remission with the widely accepted definition used for major depressive disorder, and the latter definition provides for a more clinically significant indicator of improvement.

The CLPS study has found surprising rates of improvement in patients diagnosed with personality disorders (Grilo et al., 2004). Within the first 2 years of follow-up, between 33% (schizotypal) and 55% (obsessive-compulsive) of patients with personality disorders experienced a period of remission according to the 2-month standard. Between 23% (schizotypal) and 38% (obsessive-compulsive) experienced a 12-month remission. In addition, on blind retest at 2 years, between 50–60% were below the threshold for a personality disorder diagnosis. The mean proportion of criteria met declined significantly for each of the personality disorders. These patterns of criteria decline and rates of remission have continued over the first 6 years of follow-up, such that by year 6, over 3/4 of patients with personality disorders have had a 2-month remission and over 2/3 have had a 12-month remission (unpublished data). Ten percent of patients with BPD remitted in the first six months, most often in association with situational changes, such as leaving stressful relationships, raising questions about whether certain personality disorders are more temporally fluctuating than previously assumed (Gunderson, Bender, Sanislow, Yen, Bame Rettew, Dolan-Sewell, et al., 2003). Personality disorders have been, however, more stable than MDD. The changes in personality disorder diagnoses have been examined to see if they were the result of methodological artifacts, such as the effects of concurrent MDD, measurement by interview vs. self-report, the influence of repeated interviews, or rater unreliability or drift. None of these accounted for the degree of improvement observed.

Relapses have also occurred, however, within the first 6 years. Relapse rates vary by personality disorder diagnosis: schizotypal personality disorder has had the lowest relapse rates and avoidant personality disorder has had the highest relapse rates.

Viewed as dimensions, personality disorders showed considerably more stability. Although the mean number of criteria decreased over time for each group, a continuous measure of number of criteria met was highly correlated across assessments during the first two years of follow-up. The number of criteria met correlated with baseline counts .74 at 6 months, .67 at 1 year, and .59 at 2 years (Grilo et al., 2004). These correlations are very similar to correlations of personality traits across age categories represented in the CLPS (18–45 years) as reported in a meta-analysis of 152 longitudinal studies by Roberts and Del Vecchio (2000). Importantly, these findings suggest that personality disorders may be characterized by maladaptive trait constellations that are stable in their structure (individual differences), but can change in severity or expression over time.

Furthermore, some diagnostic criteria for personality disorders are more stable than others -- findings that are important in the search for phenotypes. For example, *affective instability* was the most stable of the BPD criteria over the first two years of follow-up, followed by *inappropriate, intense anger* (McGlashan, Grilo, Sanislow, Ralevski, Morey, Gunderson, et al., 2005). The least stable BPD criteria were *frantic efforts to avoid abandonment* and *self-injury*. For AVPD, the most stable criteria were *feels socially inept* and *feels inadequate* and the least stable was *avoids jobs with interpersonal contact*. These findings have led CLPS investigators to hypothesize that personality disorders may be reconceptualized as hybrids of two elements: 1) stable personality traits that may have normal variants, but that in personality disorders are pathologically skewed or exaggerated, and 2) dysfunctional behaviors that are attempts at adapting to, defending against, coping with, or compensating for these pathological traits (e.g., self-cutting to reduce severe affective tension, avoiding work situations involving many people because of extreme shyness).

We have also demonstrated that traits of general personality functioning (e.g., Five-Factor traits) tend to be stable, with stability estimates in the $r = .70$ to $.80$ range over two years (Warner, Morey, Finch, Gunderson, Skodol, Sanislow, et al., 2004). However, when study patients change on these traits, the changes are followed by lagged changes in personality disorder psychopathology, across the spectrum of personality disorders. Importantly, these relationships are non-reciprocal, in that changes in personality disorder features are not predictive of subsequent changes in personality traits.

Associations in the course of co-occurring personality disorders and Axis I disorders over time were examined to test predictions of specific longitudinal associations derived from the model of psychobiological dimensions hypothesized by Siever and Davis (1991) to cut across the psychopathology represented by both Axes I and II (Shea, Stout, Yen, Pagano, Skodol, Morey et al., 2004). Using time varying analyses, CLPS showed that despite substantial comorbidity with Axis I disorders, the timing of course changes in personality disorders has been relatively independent of changes in the course of Axis I disorders. The exceptions are BPD and both MDD and PTSD, and AVPD and social phobia. These disorders may share fundamental underlying dimensions of psychopathology in the affective and anxiety domains, respectively. Although changes in both Axis I and Axis II disorders could each be shown to precede changes in the other, improvements in BPD were considerably more often followed by improvements in MDD than visa versa (Gunderson,

Morey, Stout, Skodol, Shea, McGlashan et al., 2004), suggesting that personality psychopathology was primary.

The most striking finding of the MSAD has also been the degree of improvement in the patients with borderline personality disorder: 88% of these patients experienced a remission within 10 years (Zanarini, Frankenburg, Hennen, Reich, & Silk, 2006). Furthermore, these remissions appear to be quite stable: only about 6% of the borderline patients had a recurrence. Given the prevalence of personality disorders in the general population, too few adolescent subjects in the CICS met criteria for specific disorders to reliably obtain stability estimates. Therefore, the CICS examined the stability of personality disorder traits and found that levels decreased by 48% between adolescence (age 14–16) and early adulthood (age 22) (Johnson, Cohen, Kasen, Skodol, Hamagami, & Brook, 2000).

Course of Mood Disorder Diagnoses

The probability of remission/recovery from mood disorders in the CDS, estimated by life table analyses, is available for comparison to personality disorders at one, two, and five years. The rates at one year range from .63 to .90 for mood disorders overall. Rates at five years show that approximately 88% of individuals with (unipolar) major depression, and 83 to 100% of individuals with bipolar disorder recover (Coryell, Keller, Endicott, Andreasen, Clayton, & Hirschfeld, 1989; Keller et al., 1992; Keller, Lavori, Coryell, Endicott, & Mueller, 1993).

A full picture of the longitudinal course requires consideration of relapse/recurrence. It is now clear that while mood disorders have a high probability of recovery, the chances of recurrence are also high. In the CDS sample, 67% of recovered patients with unipolar major depression had at least one relapse during five years of follow-up, and 42% had multiple recurrences. Eighty-nine percent of recovered bipolar I patients, and 87% of bipolar II patients had at least one relapse by 5 years: 70% and 67%, respectively, had more than one relapse during the 5 years (Coryell, Keller, Endicott, Andreasen, Clayton, & Hirschfeld, 1989; Keller, Lavori, Coryell, Endicott, & Mueller, 1993). In addition, examination of subsyndromal symptoms in the CDS has shown that, despite recovery as defined by the 8 weeks of minimal symptoms, large numbers of individuals continued to experience symptoms of depression at a subsyndromal level (Judd, Akiskal, Maser, Zeller, Endicott, Coryell et al., 1998; Judd, Akiskal, Schettler, Coryell, Endicott, Maser, et al., 2003; Judd, Akiskal, Schettler, Endicott, Maser, Solomon, et al., 2002). Thus, even those mood disorders that have high rates of recovery tend to have a fairly chronic course. It appears that a distinguishing feature of mood vs. personality disorders is the extent to which at least certain of the symptoms of each fluctuate.

Course of Impairment in Psychosocial Functioning in Personality Disorders

The diagnostic instability of PDs found in the CLPS and other studies (Zanarini, Frankenburg, Hennen, & Silk, 2003) raises the question of what about personality disorder is stable? In a prospective study of impairment in psychosocial functioning over the first two years of follow-up (Skodol, Pagano, Bender, Shea, Gunderson, Yen, et al., 2005), the CLPS found significant improvement in only three of seven domains of functioning: social

relationships with spouse or mate (in the minority of patients who had one), recreation, and global social adjustment. These improvements occurred largely in the MDD (with no PD) group. Patients with BPD or OCPD showed no improvement in any domain of functioning overall, but patients with BPD who experienced change in personality psychopathology showed some improvement in functioning. Of the different domains of functioning examined, impairment in social relationships appeared most stable in patients with PDs.

For STPD, Global Assessment of Functioning Scale (GAFS) scores were 51.8, 54.0, and 53.1 at baseline, one year and two years, respectively. Comparable GAFS scores for BPD were 53.1, 56.0, and 53.4; for AVPD, 59.7, 61.2, and 62.0; and for OCPD, 64.1, 64.9, and 65.8. In the CLPS sample, GAFS scores at the three time points for the MDD comparison group were 61.3, 68.3, and 66.3. Thus, although there were significant differences in global functioning between various personality disorders and between personality disorders and MDD, the only significant change (improvement) over time occurred in the first year for the MDD group only (Skodol et al., 2005).

The effects of persistent PDs on functioning and well-being in MDD were also assessed in the CLPS using the Medical Outcomes Study (MOS) Short-Form Health Survey (SF-36) (Skodol, Grilo, Pagano, Bender, Gunderson, Shea, et al., 2005). Patients with MDD and co-occurring PDs that persisted over 3 years had significantly more impairment on scales measuring role limitations due to emotional problems, social functioning, and general health perceptions than patients with MDD and no PD. In separate analyses of LIFE social and occupational domains and the GAFS, patients with MDD whose personality disorders remitted over the first 2 years of study functioned nearly as well as patients without PDs, whereas patients whose personality disorders persisted functioned more poorly (Markowitz, Skodol, Petkova, Cheng, Sanislow, Grilo, et al., 2007). Adjusting for remission of MDD (more frequent in patients in whom PDs remitted) did not qualitatively change the inferences about group differences in course of functioning outcomes, suggesting that personality psychopathology was primary.

In a comparison of the ability of various diagnostic models of personality psychopathology, including DSM-IV dimensions, the Five-Factor Model, and a Three-Factor Model, to predict functioning (and other external validators) over time, the DSM-IV relationships were strongest at the baseline assessment and declined over 4 years, while the trait-based models were less predictive at baseline, but more predictive over time (Morey, Hopwood, Gunderson, Zanarini, Skodol, Shea, et al., 2007; Skodol, Oldham, Bender, Dyck, Stout, Morey, et al., 2005). This suggests that the DSM-IV representation of personality psychopathology does capture important variance in functioning when patients have acute problems and are seeking treatment, but that over the natural course of personality disorder, personality traits capture variance in functioning better than DSM-IV criteria. These results lend further support to the “hybrid model” referred to earlier: the idea that a combination of more stable, temperamental traits and less stable, situationally-dependent symptomatic behaviors might be the best way to represent personality disorder psychopathology.

Overall, the psychosocial functioning of borderline patients in the MSAD improved significantly over the first 6 years of follow-up. Compared to only 26% of the borderline

sample who were rated as having good or better functioning when recruited in the hospital, 56% were found to have at least good functioning 6 years later (Zanarini, Frankenburg, Hennen, Reich, & Silk, 2005). Nonetheless, borderline patients continued to function more poorly than patients with other personality disorders, particularly in the area of vocational achievement. Borderline patients who experienced symptomatic remission functioned significantly better socially and vocationally than those who did not remit, e.g., 66% with good functioning in the former group vs. 27% in the latter group, consistent with findings from the CLPS.

The impact of personality disorder psychopathology on functioning has been examined in the CICS for each DSM personality disorder cluster. For cluster A (odd, eccentric cluster), adolescents with high symptoms levels had lower education and achievement (Cohen, Chen, Kasen, Johnson, Crawford, & Gordon, 2005), greater partner conflict, and earlier childbearing (Chen, Cohen, Johnson, Kasen, Sneed, & Crawford, 2004) in early adulthood. Adolescents with high levels of cluster B (dramatic, erratic) symptoms had lower levels of intimacy (Crawford, Cohen, Johnson, Sneed, & Brook, 2004) and sustained conflict with partners (Chen et al., 2004) in early adulthood. Adolescents with high levels of cluster C (anxious, fearful) symptoms had greater conflict with partners, if they had a partner (Chen et al., 2004). Adolescents and young adults who qualified for a diagnosis of personality disorder not otherwise specified (PDNOS) experienced significant educational failure and interpersonal difficulties (Johnson, First, Cohen, Skodol, Kasen, & Brook, 2005).

The effects of personality disorder stability on global functioning and impairment were also examined in the CICS (Skodol, Johnson, Cohen, Sneed, & Crawford, 2007). Individuals with persistent personality disorders had markedly poorer functioning and greater impairment at mean age 33 than did those who had never been identified as having such a disorder or who had a personality disorder that was in remission. The effects of co-occurring Axis I disorders at age 33 were taken into account. Remitted personality disorders, i.e., present before age 22, but not at age 33, was associated with mild long-term impairment. Adult-onset personality disorders (present at age 33, but not before) were also associated with significant impairment.

Taken together, these results on the course of functional impairment in personality disorders suggest that impairment is more stable than personality psychopathology itself, but that when personality disorder improves, improvement in functioning follows. The lag between improvement in personality psychopathology and improvement in functioning suggests the need to assess each independently of the other. Which specific personality disorder criteria or general personality traits are most associated with functional impairment over time is of interest in considering dimensional models. In an initial study from the CLPS, FFM neuroticism was positively correlated with generally worse functioning at 2- and 5-year follow-ups (Hopwood, Morey, Ansell, Grilo, Sanislow, McGlashan, et al., in press). Extraversion, and to an extent agreeableness, were negatively linked with especially social dysfunction and with recreational dysfunction. Openness to experience was negatively associated with recreational dysfunction and conscientiousness was negatively related to work dysfunction.

Course of Impairment in Psychosocial Functioning in Mood Disorders

In the absence of a common indicator of psychosocial functioning, it is difficult to compare findings from studies of personality disorders with mood disorders. The Global Assessment of Functioning Scale (GAFS) is the measure most frequently incorporated by studies of mood disorders (including the CDS) and personality disorders (such as the CLPS). We review some of the relevant findings from the CDS for mood disorders, which deal with persistence of psychosocial functioning.

Reports from the CDS indicate substantial chronicity in functional impairment for a large proportion of depressed patients. On average, the Global Assessment Scale (comparable to the GAFS) changed little from 6 months to 5 years (Coryell et al., 1989). The mean scores for 442 participants with non-bipolar depression were 61.1 and 63.5 at the two time-points. The comparable means for 53 participants with bipolar disorder were 59.6 and 59.1, and for participants with bipolar II disorder, 62.5 and 62.1. Thus, on average, there is not much improvement in functioning over nearly 5 years. Also reported were the percent of participants with at least some impairment in functioning at 2 and 5 years of follow-up for the three mood disorder groups. The proportions with “fair, poor, or very poor overall adjustment” at the two time periods were 59% and 58% (non-bipolar), 57% and 68% (bipolar I), and 63% and 63% (bipolar II), respectively (Coryell et al., 1989). While these data suggest substantial chronicity in functional impairment for the sample as a whole, the CDS has also shown an absence of functional impairment for participants when fully asymptomatic (Judd et al., 2000). Thus, the persistence of impairment appears to be a result of the symptomatic chronicity.

Thus, the course of functional impairment in both personality disorders and mood disorders appears to be similarly chronic. Improvement in personality disorder psychopathology and in mood disorder psychopathology is associated with improved functioning. The CLPS comparison group of patients with MDD without personality disorder was the only CLPS study group to show significant improvement in global functioning over two years. The personality disorder status of CDS subjects was not assessed. The chronic nature of impairment in CDS mood disorders may have been driven either directly or indirectly by unmeasured personality psychopathology. The indirect possibility (i.e., through the effects of PDs on mood disorder chronicity) is discussed next.

Course of Mood Disorders Co-occurring with Personality Disorders

In comparison to other personality disorders, avoidant, borderline, and dependent PDs were found most often to co-occur with mood disorders, especially depressive disorders, in the CLPS (Skodol, Stout, McGlashan, Grilo, Gunderson, Shea, et al., 1999). Severity of depression, recurrence, and comorbid dysthymic disorder predicted co-occurrence of major depressive disorder with borderline personality disorder. These results are consistent with the view that a mood disorder with an insidious onset and recurrence, chronicity, and progression in severity leads to a personality disorder diagnosis in young adults.

The 24-month natural course of remission from major depressive disorder as a function of PD comorbidity was examined prospectively in the CLPS (Grilo, Sanislow, Shea, Skodol,

Stout, Gunderson et al., 2005). The overall remission rate for MDD was 73.5%. Patients with MDD who had STPD, BPD, or AVPD as their primary PD diagnosis had a significantly longer time to remission from MDD than did patients with MDD without a co-occurring PD. These PDs were robust predictors of slowed remission from MDD even when controlling for other negative prognostic factors, such as co-occurring dysthymia, other Axis I disorder comorbidity, early age at onset of MDD, and a pattern of MDD recurrence. Research criteria for depressive personality disorder also resulted in a lower likelihood of remission of baseline MDD at two-year follow-up, while comorbid dysthymic disorder did not (Markowitz, Skodol, Petkova, Xie, Cheng, Hellerstein, et al., 2005).

Recurrences and new onsets of MDD over 6 years of follow-up were also predicted by the presence of PD at baseline (Gunderson, Stout, Sanislow, Shea, McGlashan, Zanarini, et al., 2008). Patients with BPD were more likely to have recurrences of MDD and about equally likely to have new onsets compared to patients with other personality disorders (OPDs). The number of BPD criteria and the number of affective criteria were predictive of new onsets. The number of BPD criteria and the number of affective, impulsive, and relational criteria each predicted recurrences. There was no evidence that the number or subtypes of BPD criteria were more predictive in patients with BPD than in patients with OPDs, suggesting that these dimensions of personality psychopathology have prognostic significance independent of the DSM-IV PD categorical diagnosis.

In an examination of recurrences and new onsets of bipolar disorder over 4 years of follow-up, significantly more patients with BPD developed new onsets of bipolar I and II disorders (7.9%), compared to patients with OPD (3.1%) (Gunderson, Weinberg, Daversa, Kuppenbender, Zanarini, Shea, et al., 2006). Within the OPD sample, those with co-occurring bipolar disorder were more apt to develop new onsets of BPD than were those without co-occurring bipolar disorder. This study also showed that in the BPD sample co-occurrence of bipolar I or bipolar II disorders did not much effect their course in terms of remission, functional level, or treatment utilization.

Patients with borderline personality disorder in the MSAD experienced declining rates of many Axis I disorders over 6 years (Zanarini, Frankenburg, Hennen, Reich, & Silk, 2004). Rates of mood and anxiety disorders continued to remain high, however. Consistent with the MSAD findings on effects of remission on functioning, patients with borderline personality disorder who had a remission experienced declines in all comorbid Axis I disorders assessed, while those who did not remit reported stable rates. In the CICS cluster A personality disorders, adolescent or young adult symptoms increased risk of subsequent mood, but also eating, anxiety, and disruptive behavior disorders. Adolescent or young adult cluster B symptoms increased risk of subsequent mood, anxiety, eating, disruptive, *and* substance use disorders. Cluster C symptoms increased risk of subsequent mood, anxiety, and disruptive behavior, but not eating or substance use, disorders (Johnson, Cohen, Kasen, & Brook, 2005; Johnson, Cohen, Kasen, & Brook, 2006a; Johnson, Cohen, Kasen, & Brook, 2006b; Johnson, Cohen, Skodol, Oldham, Kasen, & Brook, 1999). Significantly, childhood major depression in the CICS increased the risk of young adult personality disorders, specifically dependent, antisocial, passive-aggressive, and histrionic PDs (Kasen, Cohen, Skodol, Johnson, & Brook, 1999; Kasen, Cohen, Skodol, Johnson, Smailes, & Brook, 2001).

Childhood or adolescent depression (and other psychopathologies) may set in motion a chain of maladaptive behaviors and environmental responses that lead to personality psychopathology. Personality disorders, therefore, may represent alternative pathways of continuity for MDD across the transition from childhood to adulthood, reminiscent of the findings on depressive and personality disorder co-occurrence reported earlier from the CLPS (Skodol, et al., 1999).

IMPLICATIONS OF STUDIES COMPARING LONGITUDINAL COURSE

The comparisons of longitudinal stability based on these large samples of individuals with personality disorders and mood disorders suggest that stability does not provide a meaningful distinction between them. Personality disorders are less stable than presumed by DSM conceptualizations of Axis II disorders. While data on persistence in psychosocial impairment is more limited, it also appears that personality disorders do not have more persistent functional impairment than the mood disorders. Mood disorders are associated with higher likelihood of recovery from a given episode, and clearly show more fluctuations in the severity of symptoms compared to personality disorders. In addition, when individuals with depression become fully asymptomatic, impairment in functioning does appear to resolve (Judd, Akiskal, Zeller, Paulus, Leon, Maser, et al., 2000). Nonetheless, the high rates of relapse and recurrence, and the substantial chronicity of symptoms at the subsyndromal level (Judd et al., 1998; Judd et al., 2003; Judd et al., 2002), have led to the conclusion that mood disorders are life-long. Recovery from personality disorders eventually results in improvements in functioning as well.

It may be that personality disorders are in fact stable, but the criteria currently used to define them do not adequately capture what is stable about personality disorders. The criteria for personality disorders include a mixture of traits and specific behaviors. The behavioral criteria are examples, or manifestations of trait constructs that serve as markers of the trait, but may not necessarily be continuously present. For example, suicide gestures or specific kinds of self-injurious behaviors might be manifestations of affective instability and/or impulsivity. They may be important as markers of these pathological traits, but may occur episodically or not at all. The assessment of stability in the CLPS involved tracking the persistence of the individual criteria with monthly ratings of each criterion. Thus, while an underlying predisposition towards affective instability or impulsivity may be stable, the diagnostic criteria exemplifying such traits may not be persistently present. It has also been suggested that the self-injurious behavioral criterion for BPD would be better understood as an expression of episode of a mood, eating, psychotic, or dissociative disorder (Tyrer, 1999; Widiger, 1993) rather than of an enduring personality trait. At the same time, a tendency or propensity toward self-harm may be more trait-like.

It is increasingly recognized that despite conceptual distinctions, there is overlap in some of the psychopathology embedded in the criteria for mood disorders and personality disorders. One relevant model proposes that four psychobiological dimensions may underlie both the Axis I disorders and the personality disorders: abnormalities in cognition and perception, affect regulation, impulsivity, and anxiety and inhibition (Siever & Davis, 1991). This approach recognizes enduring vulnerabilities or propensities to manifest particular

symptoms or behavior, very similar to the notion of personality traits, underlying Axis I disorders. From the perspective of personality functioning, several models describe affective traits (also referred to as temperament) (Widiger, 1993). The Five-Factor Model (FFM) (McCrae & Costa, 1999), for example, includes neuroticism, which is the enduring propensity to experience negative affects such as anxiety, depression, and irritability. Clark and colleagues have described a model of positive and negative affectivity, defining each as "...a stable, heritable, and highly general trait dimension with a multiplicity of aspects ranging from mood to behavior" (Clark, Watson, & Mineka, 1994) (p. 104). They further describe these temperamental dimensions as vulnerabilities for the development of anxiety and depression (Clark, Watson, & Mineka, 1994). These dimensions have been shown to be stable over a period of 6 to 7 years in a non-clinical sample recruited as college students, at least with regard to rank order stability, although the mean level of negative affectivity showed a significant decrease (Watson & Walker, 1996). As noted by Widiger (1993), fluctuations in intensity of the affects associated with temperamental dimensions "...can at times reach clinically significant levels of maladaptivity and warrant a diagnosis of mental disorder" (Widiger, 1993, p. 100).

Dimensions of temperament may explain the chronicity of mood disorders, as these are enduring propensities to experience negative affects including depression. There may be increases in the intensity of such affects for periods of time, captured in the mood disorders as "episodes." In an examination of the timing of the improvements in the personality and Axis I disorders, significant time-varying associations were found for BPD with major depression, and for AVPD with social phobia (Shea, Stout, Yen, Pagano, Skodol, Morey, et al., 2004). Furthermore, despite the relative instability of the personality disorder diagnoses in the CLPS sample, and significant decreases in the mean number of criteria present, the rank order of individuals on the number of criteria met for the disorders (i.e. the correlations over repeated assessments) was very high, indicating stability in terms of the kinds of criteria present (Shea et al., 2002). Thus, it may be that both mood disorders and personality disorders are characterized by enduring vulnerabilities, with periodic exacerbations that reach full diagnostic criteria for the various disorders. Furthermore, personality disorders and mood disorders may share at least some of the same enduring vulnerabilities.

The implications of this conceptualization for the DSM suggest certain directions. First is the recognition and further delineation of common dimensions that underlie both personality disorders and mood disorders. It may further be important to identify subgroups of individuals who experience episodes of mood disorders, such as major depression, that do not share an ongoing propensity towards negative affectivity. It is possible that the etiology of such episodes is different from those that represent an exacerbation of a persistent temperamental trait. For the personality disorders, it will be important to more clearly define the multiple underlying trait dimensions, including those that are and are not shared with mood disorders. Much work in this direction has already been accomplished, and much has been written regarding the relevance of various dimensional schemes for conceptualizing the personality disorders. Currently, such dimensions are assessed by self-report measures, such as the NEO for the Five-Factor Model (Costa & McCrae, 1997), the DAPP for dimensions of personality disorder (Livesley, Jackson, & Schroeder, 1989), and the SNAP for dimensions of normal and abnormal personality (Clark, 1993). The ability to assess such

dimensions by clinical interview, with additional consideration of the range and examples of behaviors that may be manifestations of the dimensions, will be important to establish the clinical relevance of the dimensions underlying the maladaptive traits and behaviors of personality disorders. With clearer descriptions of the traits underlying the personality disorders, including definitions and assessments that consider the range of possible manifestations of such traits, it may be possible to determine with greater accuracy the aspects of personality disorders that are stable. It will further be important to develop a clearer understanding of the meaning of “stability,” including the notion that this is a relative concept.

Finally, it will be important to clarify what is distinctive about personality disorders, to aid in their differential diagnosis from mood and other mental disorders. Currently, the DSM-V Personality and Personality Disorders Work Group is developing a model of personality functioning based on deficits in self-concept and incapacities in interpersonal relationships. These appear to be central to borderline personality disorder as conceptualized from many different theoretical perspectives (Bender & Skodol, 2007), as well as other DSM personality disorder types.

Other studies of the short-term outcome of borderline personality (1–3 years) have found modest improvements in functioning, as assessed by the GAS. Studies have reported 2–3 year mean GAS outcome scores in the 50's, a range characterized by moderate symptoms or moderate impairment in functioning (Barasch, Frances, Hurt, Clarkin, & Cohen, 1985; Mehlum, Friis, Irion, Karterud, Vaglum, & Vaglum, 1991; Najavits & Gunderson, 1995; Perry, 1985; Tucker, Bauer, Wagner, Harlam, & Sher, 1987). Several long-term outcome studies have examined global functioning in patients with BPD for as long as fifteen years after discharge from an inpatient psychiatric unit (McGlashan, 1986; Paris, Brown, & Nowlis, 1987; Plakun, Burkhardt, & Muller, 1985; Stone, Hurt, & Stone, 1987). These studies all showed an apparent improvement in global functioning, with GAS scores averaging in the mid-60's, a range characterized by mild symptoms, or some difficulty in psychosocial functioning, but generally functioning pretty well. However, most of these studies relied on retrospective chart reviews and had one follow-up assessment time point, thereby limiting the conclusions about the degree of improvement in functioning observed in long-term BPD patients. Still, these findings together suggest that even among inpatient samples of individuals with BPD, global functioning seems to gradually improve in the years following discharge. Functional and symptomatic improvement for either personality disorders or mood disorders does not necessarily go hand in hand, however. Therefore, assessments of functioning and impairments may need to be independent of symptom or trait assessment in a comprehensive model of mental disorders in DSM-V.

These findings lead to several critical questions to answer in the future. Among those patients with PDs who “remit,” what is the probability of “relapsing?” If relapse rates are low, then a substantial proportion of individuals, who meet criteria for a PD using state of the art measures, cannot be characterized by the general DSM PD criterion of an “enduring” or “stable” pattern of maladaptive behaviors or traits. The ability to characterize patients who turn out to be “false positives,” using the traditional definition of a PD, would be valuable, particularly for family or genetic studies. On the other hand, if relapse rates are

high, this at least a subgroup of PDs have a fluctuating course, in contrast to one that is uniformly stable. Such relapses would also provide the opportunity to examine the role of mediating factors, such as positive and negative life events, in altering the course of PDs.

A second critical question is, do subjects who do not remit early on remain ill indefinitely, or do they simply remit more slowly? If future rates of remission are low, this observation would be consistent with the notion of an enduring pattern of maladaptive traits and behaviors at least for a core group of patients with PDs.

Finally, will the initial longitudinal relationships of pathological traits, personality disorders, and Axis I psychopathology hold up over time? Such relationships point strongly toward shared endophenotypes, whose identification is critical for genetic studies, treatment development, and classification.

FAMILY STUDIES

Family studies that find a heightened risk of a mental disorder in the first-degree relatives of patients with that disorder, like longitudinal studies, have been considered a means of validating a psychiatric diagnosis (Robins & Guze, 1970). Familiality does not distinguish genetic from environmental causes of a disorder, but by clustering in families, disorders shed light on discoverable pathogenetic pathways. The familiality of borderline personality disorder (BPD) has most often been considered in relationship to mood disorders because of the clinical and research conceptualizations of BPD by some as an affective spectrum disorder (Akiskal, 1981). BPD has frequently co-occurring mood symptoms and disorders and may share some underlying neurobiological factors (Skodol, Gunderson, Pfohl, Widiger, Livesley, & Siever, 2002; Skodol, Siever, Livesley, Gunderson, Pfohl, & Widiger, 2002). Both depression and bipolar disorder have phenomenology that overlaps with the diagnostic criteria of BPD.

Borderline Personality Disorder

In the nine studies reviewed by White and colleagues (White, Gunderson, Zanarini, & Hudson, 2003) that have examined the prevalence of BPD in relatives of probands with BPD, the prevalence or age-adjusted morbidity risk ranged from 1% to 25%. Epidemiological studies suggest a 0.7 to 3.2% prevalence of BPD in the general population (Torgersen, 2005); thus, there is a 4- to 20-fold increase in BPD in the relatives of BPD probands. Six of the nine studies examined the prevalence of BPD in relatives of comparison group probands. Four of these found a significantly higher rate or risk for BPD in the relatives of the BPD probands. Three studies examined the prevalence of Cluster B personality disorders (antisocial, histrionic, narcissistic, and borderline) as a group in the relatives of BPD probands. Two of these found prevalences of 21% and 22%. Riso and colleagues (2000) found a significantly higher risk for Cluster B PDs in the relatives of BPD probands than in the relatives of a never psychiatrically ill comparison group, and a similarly high rate in the relatives of probands with mood disorders. The high prevalence of Cluster B PDs in general in the relatives of probands with BPD, suggests that certain personality traits that characterize this cluster, such as affective instability and impulsivity, may aggregate in BPD families. Over all studies using DSM criteria, BPD is significantly more common

among the relatives of probands with BPD than among the relatives of non-BPD probands. Differences in the sample sizes, in the diagnostic criteria used, in the diagnoses of comparison groups, in recruitment procedures, and in interview methods preclude calculation of the true familial risk estimate, however. Critiques of the methods employed in these family studies are available elsewhere (Nigg & Goldsmith, 1994; White, Gunderson, Zanarini, & Hudson, 2003).

Mood Disorders

Six studies have assessed the prevalence of any mood disorder in relatives of probands with BPD (White, Gunderson, Zanarini, & Hudson, 2003). The prevalence ranged from approximately 6–50%. Two of the studies did not differentiate between depressive disorders and bipolar disorders. They found overall lifetime prevalences of mood disorders of 21% and 50%. Of those studies that also differentiated among the mood disorders, the prevalence of major depressive disorder (MDD) far exceeded that of bipolar disorder, by as much as 45:1.

Major depressive disorder—Ten studies have assessed the prevalence or morbid risk of MDD in the relatives of probands with BPD (White, Gunderson, Zanarini, & Hudson, 2003). The prevalence estimates were between 5% and 31%. The lifetime prevalence of MDD in the general population is about 17% (Kessler, McGonagle, Zhao, Nelson, Hughes, Eshleman et al., 1994). Two studies compared the prevalence of MDD in the relatives of probands with BPD to the prevalence in the relatives of probands with MDD. One of these studies found that the risk for MDD was significantly less in the BPD probands and the other found no difference. Three studies showed that relatives of BPD probands had significantly higher prevalences of MDD than relatives of comparison probands who had neither MDD nor BPD. In order to determine whether the elevated prevalence of MDD in BPD relatives was due to the co-occurrence of MDD in the BPD probands, three studies compared MDD prevalence among relatives of BPD probands who had no co-occurring MDD with that in relatives of co-morbid cases. In all three, the prevalence of MDD was significantly lower in the relatives in the BPD group without MDD. These studies have been interpreted as indicating that BPD and MDD are independent disorders that frequently co-occur. Riso and colleagues (Riso, Klein, Anderson, & Ouimette, 2000) found a higher prevalence of MDD in relatives of probands with BPD and no MDD than in relatives with neither BPD nor MDD. They found no difference in the prevalence of mood disorders between relatives of BPD probands without MDD and relatives of probands with mood disorders (including 38% with MDD). These findings suggest co-segregation of MDD and BPD in families.

Bipolar disorder—Seven studies found a prevalence or morbidity risk of bipolar disorder in relatives of probands with BPD ranging from 0.5% to 4.5% (White, Gunderson, Zanarini, & Hudson, 2003). The lifetime prevalence of bipolar disorder in the general population is about 1.6% (Kessler et al., 1994). These rates were no higher than in the relatives of various comparison group probands. In two studies in which the comparison group was probands with bipolar disorder, rates of bipolar disorder in BPD probands (with or without co-occurring mood disorder) were non-significantly lower. In neither study was the rate of BPD

increased in the relatives of probands with bipolar disorder. In contrast to the results for MDD, these results do not suggest a familial relationship between BPD and bipolar disorder.

IMPLICATIONS OF FAMILY STUDIES

Family studies are generally consistent with the notion that borderline personality disorder, at least, “breeds true.” They are also consistent with the recent findings from a twin study that found strong heritability (0.52 to 0.69) for BPD (Torgersen, Lygren, Oien, Skre, Onstad, Edvardsen, et al., 2000). Existing studies of the co-aggregation of BPD and MDD (but not bipolar disorder) are promising, as are other studies of co-aggregation of BPD with disorders in the impulse control spectrum (e.g., substance use disorders, antisocial personality disorder) (Zanarini et al., 1988). Results so far point to an alternative strategy for studying the familial patterns of personality psychopathology that is focused more on component traits (e.g., affective instability, impulsivity) than on disorders themselves. Several studies (Silverman, Pinkham, Horvath, Coccaro, Klar, Scheer, et al., 1991; Zanarini, Frankenburg, Yong, Raviola, Reich, Hennen, et al., 2004) have revealed that traits are more familial than diagnoses, and may be inherited independently. The particular aggregation and co-aggregation of personality trait dimensions may lead to the discovery of the heritable dimensions of psychopathology underlying both Axis I and Axis II disorders (the spectrum model) and explain common patterns of co-morbidity among personality disorders and between personality disorders and certain specific Axis I disorders, such as the mood disorders (Skodol, Siever, et al., 2002). Thus, individuals with BPD would share the traits of affective instability or emotional dysregulation with individuals with histrionic PD, of impulsivity with individuals with antisocial PD, and of deficits in interpersonal relatedness with individuals with narcissistic PD.

SUMMARY

The results of three rigorous studies of the naturalistic course of personality disorders indicate the following: 1) personality psychopathology improves over time at unexpectedly significant rates; 2) particular maladaptive personality traits are more stable than personality disorder diagnoses; 3) although personality psychopathology improves, residual effects are usually seen in the form of persistent functional impairment and ongoing Axis I psychopathology; 4) improvement in personality psychopathology may eventually be associated with reduction in ongoing personal and social burden. A comparison of the longitudinal stability of personality disorders and mood disorders does not support a clear distinction between them based on differential stability of either psychopathology (at least based on remission rates) or functional impairment. Differences may yet emerge with respect to relapse rates over the longer term. Both types of disorders may share some common underlying vulnerabilities best conceptualized in term of personality traits. A group of promising, though methodologically flawed, family studies suggest familiarity of at least BPD among the personality disorders and the co-aggregation of BPD and depressive disorders (but not bipolar disorders) that may contribute to their frequent co-occurrence. Again, underlying personality traits may prove to be more heritable than either type of disorder.

CONCLUSIONS

Personality psychopathology may be more waxing and waning than traditionally thought. Because personality disorders have their origins in childhood or adolescence, deficits in the development of affect regulation, conscience, impulse control, or identity consolidation can be expected to have adverse and persistent effects on a person's adaptation to the occupational and social demands of young adult life, manifest as impairment in functioning. Mood disorders, on the other hand, are more chronic than tradition would imply. Given the apparent primacy of personality traits to personality disorders and their intertwining with both psychopathology and functioning, these three domains – personality, psychopathology, and functioning warrant independent assessment in all patients. A model standardizing these assessments should be developed and incorporated into DSM-V. This approach can help to clarify similarities and differences in psychopathology and functioning between personality disorders and mood disorders to help in their differential diagnosis. The model can also make complex mental disorders and heterogeneity among patients with similar disorders more rational. Finally, it is likely to contain elements that would better serve as phenotypes for studies of pathogenesis and etiology than do current diagnostic categories.

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