

Rethinking the DSM III-R Diagnosis of Antisocial Personality Disorder

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The diagnosis of antisocial personality disorder (APD) has undergone substantive revisions in the DSM III and DSM III-R criteria. Within the context of these modifications, the authors reviewed the current research and psychometric models of APD. They found considerable variability among these models which in turn appear to be only modestly correlated with DSM standards. Recommendations are offered to reduce symptom variations subsumed within APD and to explore a reformulation of APD for achieving greater congruence with research findings.

Profound ambivalence undergirds most professional discussions of antisocial personality disorder (APD). Traditional roles of assessment and treatment become vitiated as clinicians wrestle with such enigmas as “deviant but not disordered” behavior. If APD individuals are not truly disordered, then the very basis of treatment is unavoidably undermined. We believe that this fundamental ambivalence towards APD is exemplified in the dramatic shifts in diagnostic standards. We will outline these shifts, address enduring problems in APD assessment and treatment, and underscore the innumeracy inherent in DSM III-R¹ classification.

Diagnostic Standards

Simply put, DSM II diagnosis² of APD shares no common criteria with

DSM III³ and only one (lack of remorse) with DSM III-R. The DSM II diagnosis of APD focused primarily on characterological deficits of psychopathic individuals as “grossly selfish, callous, irresponsible, impulsive, and unable to feel guilt”; although their deviant behavior brought them into “conflict with society,” there was no specific designation of criminality. The change to a descriptive paradigm in DSM III required that diagnoses shift from personological traits to reliable inclusion and exclusion criteria.^{4,5} In their search for explicit criteria, the framers of DSM III adopted, almost verbatim, the SADS-RDC model⁶⁻⁸ with its developmental perspective (i.e., childhood and adult symptoms). The resulting DSM III focused almost exclusively on observable antisocial and dyssocial behaviors. Millon⁹ took issue with this undue emphasis on delinquent and criminal indices as a “major regressive step that DSM has

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returned to an accusatory judgment rather than a dispassionate clinical formulation" (p. 181). Little did Milton know what lay in store in the DSM III-R revision.

DSM III-R evidenced a further conversion to the aggressive and criminological aspects of APD. Most noticeably, developmental symptoms indicative of dysfunction (e.g., substance abuse, poor grades, rule breaking, and suspension from school) were deleted in favor of aggressive criminal acts (e.g., sexual assault, use of a weapon, firesetting, and physical cruelty). This disturbing trend of equating APD with criminality (see Reid¹⁰) transforms APD from a dysfunctional pattern of interpersonal behavior to the obvious characteristics of the violent criminal. Is the key to this enigmatic change, "too bad to be mad?" As we examine the models of APD below, such changes in the diagnostic standards do not appear to be justified by empirical research.

Models of APD

Research models of APD share little in common with the DSM progression towards criminality. Hare's¹¹⁻¹³ prodigious line of research has sought to operationalize Cleckley's classic work¹⁴ through the development of the Psychopathy Checklist (PCL). The PCL is psychometrically sound^{13, 15, 16} with excellent interrater reliability ($r = .89$), internal consistency (alpha coefficient of .90) and correlated at .80 with a general measure of psychopathy. As carefully acknowledged by Hare, his research has focused exclusively on the *psychopathic*

criminal. In other words, Hare's studies were strictly limited to male inmates and compared incarcerated samples of psychopathic and nonpsychopathic criminals.

Hare and McPherson (17) summarized several studies on the careers of psychopathic criminals. They found psychopathic criminals (PCL ratings ≥ 30) committed more property crimes than their nonpsychopathic counterparts (PCL ratings < 22). Psychopathic criminals almost invariably perpetrated at least one violent offense with nearly half convicted of robbery (49.3%) and assault (45.2%). In addition, they were more problematic than nonpsychopathic criminals while incarcerated as indicated by frequency of verbal threats and fighting. More recent research by Hart, Kropp, and Hare¹⁸ found that male psychopathic criminals had less than a one in five chance (a probability of .18) of remaining in the community after three years; the great majority were revoked from parole or arrested on new charges. In direct contrast, nonpsychopathic criminals were not likely to be reincarcerated (a probability of .71). Hare's conclusions are amply supported through other investigations.^{19, 20} Other research efforts have focused on clinical correlates only indirectly related to diagnostic standards. For example, Farrington²¹ found a host of variables (e.g., socioeconomic, poor child-rearing, school difficulties, impulsivity-hyperactivity, and work instability) predicted antisocial and aggressive behavior in a sample of 411 males over a 24-year period. Applied to diagnosis, longitudi-

Diagnosis of ADP

nal research with deviant youth^{22,23} generally supports Farrington's results, suggesting a broad set of familial and developmental criteria. Stouthamer-Loeber and Loeber²⁴ in their critical review of the delinquent literature found family factors (parenteral rejection and lack of family supervision) predicted as well as youth's own behavior their future criminality. In the absence of longitudinal studies on DSM III-R criteria, available delinquent studies do not support the unduly restrictive emphasis on violent developmental indices at the expense of other factors.

The etiology of APD remains obscure, probably in part because of the heterogeneity of diagnostic standards. Investigators have established both genetic factors^{25,26} and psychophysiological correlates^{27,28} of APD. Doren²⁹ provided a highly readable review of two psychophysiological based models of psychopathy: Eysenck and Eysenck's conditionability deficiency theory³⁰ and Quay's sensation seeking theory.³¹ As recent reviews amply demonstrate^{10,32-34} a plethora of psychodynamic, interpersonal, and sociocultural explanations of APD have been offered.

Psychometric models of APD have formed their own distinctive criteria and theoretical constructs. Perhaps best known is the MMPI Scale 4, which was validated on young adults with lengthy histories of minor delinquency.³⁵ Elevations on Scale 4 are seen indicative of antisocial attitudes but not necessarily overt antisocial behavior. Factors identified with Scale 4 include delinquency, impulse control, hypersensitivity, shy-

ness, and neuroticism. Harris and Lingoes³⁶ derived four subscales from Scale 4 to assess familial discord, authority conflict, social imperturbability, and alienation. Of these, only authority conflict approximates DSM III-R criteria. Predictably, Hare¹³ found only modest correlations between MMPI Scale 4 and both DSM III ($r = .26$) and PCL ($r = .29$). Given the widespread applications of the MMPI in the assessment of psychopathology including APD, the divergency between Scale 4 and other indices gives us some cause for concern.

Eysenck and Eysenck³⁷ developed the Eysenck Personality Questionnaire (EPQ) to study psychopathy in an offender population. They postulated that psychopaths would score high on extraversion, neuroticism, and psychoticism. For the purposes of scale construction, psychopaths were equated with criminals which constrains interpretation (see Hare and Schalling³⁸). Jackson and Paunonen³⁹ noted other limitations to the EPQ's validity, including questions regarding its factor structure. Despite these psychometric problems, the EPQ offers an additional construct for APD as reflecting a constellation of extraversion, emotional lability, and tough mindedness. It bears little resemblance to MMPI Scale 4, both in factors and criterion groups.

The most recent addition to psychometric models is Millon's⁹ biosocial learning theory to explain the emergence of personality disorders. He constructed the Millon Clinical Multiaxial Inventory (MCMI)⁴⁰ to assess specific personality styles including antisocial. He devised

Scale 6 to measure aggressive feelings, assertive self image, vindictiveness, sensation seeking, and hostile projections onto others. Millon reported good test-retest reliabilities with coefficients of .90 and .83 for Scale 6. However, Widiger and Sanderson⁴¹ found little relation between an early version of MCMI and DSM III diagnosis. Indeed, they found little agreement on classification and a modest correlation between the two measures of .28.

Models of APD underscore its current complexity and heterogeneity. Separate from the DSM progression, the Cleckley-Hare criteria have enjoyed center stage in applied APD research. Psychometric models offer three additional and entirely different approaches to APD. With this bewildering array of diagnostic standards, APD scales, and etiological explanations, we begin to doubt seriously the usefulness of APD as a unitary diagnosis.

Innumeracy Problems with DSM III-R

Hofstadter⁴² has described cogently modern problems with innumeracy in which individuals become numbed into a state of numerical illiteracy where their ability to ascertain all but the simplest quantification is severely compromised. We believe that DSM III-R model of APD has unwittingly fallen prey to innumeracy. When posing the question to our colleagues, "How many variations of symptom presentation may qualify as APD using DSM III-R criteria?," responses range from several dozen to several hundred.

DSM III-R APD diagnosis appears deceptively simple. At first blush, a naive observer finds that the diagnosis is made when three or more of the conduct disorder symptoms and four or more of the adult symptoms are present. Closer inspection reveals two sets of subcriteria: *enumerated* subcriteria ($N = 11$), which are comprised of three for work behavior, two for failure to plan ahead, and six for parental ability; and *unenumerated* subcriteria ($N = 5$), which include three for disregard for the truth and two for recklessness. Because each subcriterion is given equal weight with a criterion, the combination of subcriteria and criteria for adult symptoms alone increases dramatically.

Returning to the question of how many DSM III-R symptom variations qualify as APD, it becomes clear that there are seemingly innumerable possibilities (see Table 1). Within the conduct disorder symptoms, use of the minimal criteria alone (i.e., 3 of 12) has 220 variations while *3 or more* of 12 criteria yield 4,017 variations. Using the adult criteria alone results in a rather unsettling 848 variations. When combined, the symptom variations for DSM III-R APD diagnosis explode into more than three million possibilities. The worst is yet to come: because each subcriterion is sufficient to meet the criterion, we may compute the possible variations of criteria *and* subcriteria at a number-numbing 29 trillion.

What we have presented in Table I are the possible variations of DSM III-R and DSM III diagnoses. The most conservative estimate for DSM III-R is

Table 1
Symptom variations for DSM III-R and DSM III APD disorders

DSM Classification	Symptom Variations Possible Under			
	Criteria	Threshold Criteria Only*	Threshold + Criteria Only†	Criteria Subcriteria‡
<i>DSM III-R</i>				
Conduct	3 of 12	220	4,017	4,017
Adult	4 of 10	210	848	7.3×10^6
Total		46,200	3.4×10^6	2.9×10^{10}
<i>DSM III</i>				
Conduct	3 of 12	220	4,017	4,017
Adult	4 of 9	126	382	6.6×10^6
Total		27,720	1.5×10^6	2.6×10^9
<i>Combined DSM III and III-R</i>				
Conduct	3 of 18	816	261,972	261,972
Adult	4 of 11	330	1,816	6.3×10^7
Total		269,280	4.7×10^8	1.6×10^{13}

* Variations meeting the minimal threshold criteria in DSM.

† The sum of the possible variations *at or above* threshold for DSM criteria. For example, the sums for factorial equations of DSM III-R adult criteria from 4 of 10 to 10 of 10 results in 848 variations.

‡ The product of factorials for each enumerated subcriterion multiplied by the results of threshold-plus criteria in Column 3. Using the above example of DSM III-R adult criteria, the 848 variations in Column 3 were multiplied by the variations of subcriteria: $(3!2!6!)$ or $8,640 \times 848 = 7.3 \times 10^6$. Note that only *enumerated* subcriteria were included; if unenumerated (explicit) subcriteria had also been employed, the variations would be astronomically greater.

46,200 (this estimate assumes that most individuals do not exceed the minimal threshold criteria) and range to 3.4 million (this estimate assumes that most individuals will exceed the minimal threshold criteria) and 29 trillion (this estimate assumes that different subcriteria will be commonly used to meet the threshold criteria). How many variations can be found in clinical populations has not, to our knowledge, been investigated. Indeed, when we look at the possible variations of APD during the last decade (i.e., DSM III and DSM III-R combined), the number of combinational possibilities easily exceeds the world population. Needless to say, any diagnosis with more than a quadrillion variations is likely to be suspect.

A further test of heterogeneity is the

number of *non-overlapping* diagnoses for APD. In other words, how many different APD diagnoses are possible with DSM III-R that are entirely distinct from each other? For example, one APD individual may present with instability and deception (i.e., conduct symptoms such as lying, truancy, and running away and adult symptoms such as lying, poor work history, promiscuity, and lack of remorse). Another APD individual may have an entirely different clinical presentation featuring aggressive behavior (i.e., conduct symptoms such as firesetting, sexual assault, and assault with a weapon and adult symptoms such as physical fights, antisocial acts, defaulting on debts, and recklessness). When the subcriteria are included, it is possible to have four totally different APD diag-

noses at the same time. Without an overarching theory of APD grounded in empiricism, it would appear hasty and ill-conceived to assume that these non-overlapping diagnoses measure a unitary construct and should be subsumed under one diagnostic entity.

The numerical underpinnings of DSM III-R APD diagnosis result in several more unresolved issues. First, an implicit assumption of DSM III-R is that each criterion receives equal weighting with no allowances for severity (see discussion below of polythetic diagnoses). In other words, stealing newspapers is equated with a bank heist, and having no fixed address for 30 days is treated the same as having no known address for five years. Second, the DSM III-R confuses arbitrariness with objectivity. Although a criterion such as "has never sustained a totally monogamous relationship more than a year" sounds objective, it raises more questions than it satisfies. How much "more" than a year? Is the patient responsible for his/her spouse's fidelity? Do periods of abstinence (e.g., during detention) count? On the matter of arbitrariness, in what way is a bitterly endured relationship of 12 months superior to a spontaneous and loving involvement of six? Similarly, the criterion "significant unemployment for six months or more within five years when expected to work and work was available" appears more arbitrary than objective. For example, successful business consultants, performers, and entrepreneurs may choose not to work over others' objections and yet remain financially comfortable. As noted by

Frances,^{5,43} the movement from categorical (presence or absence) to dimensional (degree of severity) would diminish at least some of the problems inherent in a single threshold and its concomitant arbitrariness.

Overlap of APD with Other Disorders

Invoking the Sydenham criteria for a disorder,⁴⁴ diagnosis is based on reliable inclusion/exclusion criteria that predict the course of the disorder (i.e., outcome criteria). With considerable overlap among disorders, diagnosticians must worry about the integrity of the inclusion/exclusion criteria and increased difficulties in charting the course of each disorder. One admittedly inelegant solution is to exclude APD whenever it occurs only during manic episodes or schizophrenia (see DSM II and DSM III-R). This proviso is unlikely to be of much practical use inasmuch as the onset for schizophrenia and mood disorders is typically during adolescence and early adulthood⁴⁵ and the present APD criteria require conduct disorder symptoms *prior* to the age of 15. Given the salience of antisocial behavior, several commentators (e.g., Travin and Potter⁴⁶) worry that practitioners may reverse the exclusion criteria and overlook schizophrenic disorders in the presence of APD symptoms.

The confluence of APD and substance use disorders is particularly troublesome. Koenigsburg, Kaplan, Gilmore, and Cooper⁴⁷ studied DSM III Axis II diagnoses in 2,462 patients at New York Hospital-Cornell Medical Center. They

Diagnosis of ADP

found (1) most drug abusers did not warrant APD diagnoses (i.e., only 11%) and (2) the majority of APD patients (i.e., 62.5%) also had substance use disorders. Similarly, Hare and McPherson¹⁷ in their study of criminal psychopaths found that the most had alcoholism and/or drug abuse. A study of early-onset drug abusers and APD might well prove useful, because the “economics” of illegal substance abuse may contribute to the overlap in disorders. Facile conclusions such as “drugs cause crime” or “crimes cause drug use” are unlikely to be helpful or true. However, it may be possible to identify a small minority of substance abusers in which all the APD symptoms appear secondary to substance abuse. The distinction, if possible, between “APD secondary to substance abuse” and “substance abuse superimposed on APD” would have important treatment implications.

APD and Treatability

Rogers and Lynett⁴⁸ observed the slippery slope of APD within the forensic system. To be diagnosed as APD or its close cousin “mixed personality disorder with antisocial features” is to fall victim to a devastatingly circular argument. First, certain behaviors are labeled as criteria of APD. Second, APD criteria are labeled as traits. Third, traits are designated as stable (i.e., relatively unchangeable) patterns of personality. Fourth and finally, APD individuals are viewed as unchangeable and therefore untreatable. Given the notion that these antisocial “traits” are seen as bad rather than evidence of mental illness,⁴⁹ it is not sur-

prising that APD diagnosis results in negative consequences for forensic patients.

The diagnosis of APD is likely to signal a simultaneous decrease in mental health services and increase in criminal sanctions. Clinicians with few exceptions^{29,33,50} are likely to view APD individuals as poor candidates for treatment. Such pessimism is shared by both forensic⁵¹ and nonforensic^{9,32} mental health professionals, perhaps reflecting the rather dismal results of treatment on recidivism in delinquent populations,^{52,53} although more recent research is less bleak.⁵⁴

Rogers, Gillis, Dickens, and Webster⁵⁵ in a study of clinical decision making found that personality-disordered forensic patients (most frequently antisocial) were often not recommended for treatment, although their prognosis was seen as more favorable than those with Axis I disorders. However, this latter finding must be viewed in the context of general pessimism towards prognosis since only 8.9 percent of the entire sample ($N = 1,238$) was judged as having a good to excellent prognosis.

Wong and Elek⁵⁶ conducted a recent review of treatment outcome with APD individuals. Focusing on the Cleckley criteria, they found very few studies that offered both explicit descriptions of treatment programs and outcome criteria. The available research, in their opinion, does not adequately address treatability. Ogloff and his colleagues⁵⁷ in a study of male psychopaths found that fewer accepted or responded to treatment than nonpsychopathic criminals.

Without follow-up data, it remains unknown whether the psychopaths who completed treatment will show long-term gains.

The decision whether to offer treatment must be tempered by the societal consequences of untreated criminal psychopaths. Even if treatment is successful in a mere 10 percent of cases, correctional programs must weigh the comparatively modest expenses of such treatment against the burgeoning price of incapacitation and the spiraling social costs of further victimization. From a rather jaundiced perspective, corrections is one of the few fields that is rewarded for continued "failure" through enhanced funding.

Conclusions

The successive transformations of APD from DSM II to DSM III-R as well as the parallel and seemingly independent alternative models (research and psychometric) speak eloquently to APD's uncertain status in mental health. The present, unpalatable compromise is for mental health to diagnose and criminal justice to punish. One commentary⁴⁵ captured the essence of this quixotic position when it chided defense counsel for exacerbating antisocial behavior by interfering with punishment!

Despite recent and dramatic changes in patient rights, professional attitudes toward the mentally ill remain decidedly paternalistic. Although most clinicians are willing to acknowledge that APD individuals have substantial deficits in the ways which they think, feel, and certainly act, these same clinicians are

less enthusiastic to accord them true patient status. We would hypothesize this discrepancy has more to do with APD individuals' antipaternalistic attitudes than the sheer nastiness of their actions. For an example from the forensic context, a murdering schizophrenic may evoke more sympathy than a defrauding psychopath.

We would also speculate that DSM III and DSM III-R have attempted to deal with professional ambivalence by a polythetic model. Although this approach allows different proponents of APD latitude in diagnosing their versions of the disorder, an unintended consequence is a chaotic model. DSM III-R represents a discordant amalgam of inclusion criteria that yields an astonishing number of symptom variations subsumed within a single diagnostic entity.

The long-term solution to APD diagnosis would involve the partial integration of APD models through cluster and factor analysis and the adoption of dimensional criteria. The current polythetic model does not provide a coherent paradigm for personality disorders^{5,58} and only allows for the relatively unsophisticated classification of data as present/absent.⁴³ Problems with symptom variations, inherent in the polythetic approach, have been previously reported for borderline personality disorder⁵⁹ and are exacerbated by the double set of criteria (conduct and adult) found in APD. Establishment of symptom severity through dimensional diagnoses and selection of symptoms based on discriminant validity would be two substantive improvements in APD.

We understand that the DSM IV Task Force on APD is making important strides in reexamining APD diagnosis both with respect to its complexity and discriminant validity. In the short term, some modifications could be made in the DSM III-R classification that would more closely approximate the existing research models. We offer for further consideration three separate classifications:

1. Psychopathic Criminal as a "V" Code This condition, *not* disorder, would be diagnosable (or for purists, "classifiable") only in males with correctional histories and Clecklian characteristics. The large body of research by Hare and other investigators would suggest that psychopathic criminals are relatively distinct from offenders in general with regards to offense patterns, institutional adjustment, and recidivism. It would replace the current classification of "adult antisocial behavior," which is vague and inutile.

2. Antisocial Behavior Secondary to Drug Abuse A small minority of currently diagnosed APD individuals may be primary substance abusers with early onsets (see the discussion of Koenigsberg's research). If the antisocial behavior is subsequent to drug dependence and is limited to its acquisition (e.g., property offenses to pay for the drug) or are typical sequelae of chronic drug use (e.g., leaving home, lying, unstable relationships, financial problems, inadequacy in parenting) then this needs to be investigated separately. Naturally, clinical interventions would be focused

on the primary substance abuse problem.

3. *Dyssocial Personality Disorder*

Dyssocial personality could incorporate the exploitative interpersonal relations and personological characteristics drawn, perhaps, from the psychometric models of APD. This classification might better meet the Axis II designation and represent a diagnostic group toward which clinicians have less ambivalence in offering treatment.

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Diagnosis of ADP

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