Sadistic Personality Disorder and Comorbid Mental Illness in Adolescent Psychiatric Inpatients

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Sadistic personality disorder (SPD) is a controversial diagnosis proposed in the DSM-III-R, but not included in the DSM-IV. Few studies have focused on this disorder in adolescents. This article describes the results of a study that sought to determine the presence of sadistic personality characteristics in psychiatrically hospitalized adolescents and of comorbid Axis I or personality disorder patterns in those youth with SPD or SPD traits. Fifty-six adolescents were assessed for sadistic and other personality disorders with the Structured Interview for DSM-III-R Personality Disorders-Revised (SIDP-R). Axis I disorders were assessed using the Diagnostic Interview for Children and Adolescents, Adolescent Version (DICA-R-A) and portions of the Schedule for Affective Disorders and Schizophrenia for School Age Children, Epidemiologic (K-SADS-E). The youth were divided into those with SPD and SPD traits, the Sadistic Group ($n = 18$), and the Nonsadistic Group ($n = 38$). A significant proportion of the adolescents in this study met full DSM criteria for SPD (14%). The Sadistic Group (32%) had significantly more Axis I and personality pathology than did the Nonsadistic Group. However, all but one in the Sadistic Group met criteria for other personality disorders, confounding the interpretation of these findings and consistent with adult literature studies. Subjects with sadistic personality characteristics were identified in this adolescent inpatient sample, and they had more extensive Axis I and II psychopathology than the comparison group. The validity of this disorder in younger populations requires further study. Future studies should also explore the impact that the mandatory use of the pleasure/gratification criterion has on the validity of the SPD diagnosis and whether the requisite presence of this criterion decreases the overlap currently noted between SPD and other Axis II diagnoses.

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Sadism, a term introduced by Krafft-Ebing[1] late in the 19th century, originally referred to sexual pleasure derived through inflicting pain and suffering on others. Over time, the term was expanded to include nonsexual enjoyment derived from sadistic acts. According to Freud,[2] sadism encompassed two separate disorders: sexual sadism and generalized sadistic behavior. Later studies supported this distinction, indicating that sexual sadists do not commonly engage in nonsexual, sadistic behavior with their partners or others.[3,4] Sexual sadism in both the DSM-III-R[5] and DSM-IV[6] versions is considered to be a paraphilia. It is characterized by the affected individual's experiencing recurrent, intense sexually arousing fantasies or urges or engaging in behavior involving the psychological or physical suffering of others.

The movement for formal addition of the diagnosis of sadistic personality disorder to the psychiatric nomenclature essentially began in the 1980s. Early drafts of the DSM-III-R contained suggestions to include self-defeating personality disorder (SDPD), similar in concept to masochistic personality disorder. However, the concern was raised that abuse victims with masochistic traits, but not the perpetrators, would be thought to have a mental disorder.[7] In addition, clinicians and researchers asserted that many of the perpetrators they had studied demonstrated marked sadistic traits and therefore should be described in the DSM.[8,9] Authors such as Millon[10] echoed this sentiment, arguing that there was the need for a systematic description of individuals whose temperament is domineering, hostile, malicious, and short-tempered, and who are prone to

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Table 1 DSM-III-R Diagnostic Criteria for Sadistic Personality Disorder

A. A pervasive pattern of cruel, demeaning and aggressive behavior, beginning by early adulthood, as indicated by the repeated occurrence of at least four of the following:
   (1) Has used physical cruelty or violence for the purpose of establishing dominance in a relationship (not merely to achieve some noninterpersonal goal, such as striking someone in order to rob him or her)
   (2) Humiliates or demeans people in the presence of others
   (3) Has treated or disciplined someone under his or her control unusually harshly (e.g., a child, student, prisoner, or patient)
   (4) Is amused by, or takes pleasure in, the psychological or physical suffering of others (including animals)
   (5) Has lied for the purpose of harming or inflicting pain on others (not merely to achieve some other goal)
   (6) Gets other people to do what he or she wants by frightening them (through intimidation or even terror)
   (7) Restricts the autonomy of people with whom he or she has a close relationship (e.g., will not let spouse leave the house unaccompanied or permit teen-age daughter to attend social functions)
   (8) Is fascinated by violence, weapons, martial arts, injury, or torture
B. The behavior in A has not been directed toward only one person (e.g., spouse, one child) and has not been solely for the purpose of sexual arousal (as in Sexual Sadism).

engage in physically cruel behavior.[10] Widiger and Trull[11] and Hare[12] agreed, claiming that the constellation of traits descriptive of an individual with sadistic behavior patterns were not sufficiently explained by antisocial personality disorder (ASPD) or psychopathy. Consequently, it was suggested that the DSM-III-R include sadistic personality disorder (SPD) as a diagnostic entity. Because of the scarcity of empirical studies attesting to its validity, as well as skepticism and logistical concerns voiced by some, SPD (along with SDPD) was included in the appendix of the DSM-III-R under a section entitled, "Proposed Diagnostic Categories Requiring Further Study," with the hope that its inclusion would stimulate further research.

While the diagnostic characteristics of SPD, as defined by the DSM-III-R, share characteristics similar to the diagnostic criteria of ASPD, as defined by the DSM-IV, a closer examination reveals key differences. The DSM-III-R defines SPD as a pervasive pattern of cruel, demeaning, and aggressive behavior toward others, which is directed toward more than one person and does not solely serve the purpose of sexual arousal. Eight possible criteria were described, with the presence of four or more required for the diagnosis (Table 1). In contrast, the DSM-IV defines ASPD as a pervasive pattern of disregard for and violation of the rights of others. Note that while SPD and ASPD have many diagnostic criteria in common, such as breaking laws, failure to conform to social norms, deceitfulness, exploitation of others, and violence, the purpose for which these acts are perpetrated differs between the two diagnoses. Individuals with SPD commit the acts primarily to gain pleasure or achieve dominance and control, while those with ASPD perpetrate the acts primarily to gain profit or due to an aggressive nature with primitive mechanisms of coping with stressors. Likewise, sadists can be differentiated from other violent offenders (such as individuals with ASPD) by the fact that their acts of violence are characterized by a different quality of emotional expression. Most violence occurs in the setting of extreme emotional states—typically anger—or in the context of gaining financially, whereas sadists are believed to be motivated to a significant degree by the pursuit of pleasure, control, or satisfaction. Therefore, the purpose of the assaultive behavior or criminal actions performed by an individual can be a key factor in distinguishing between SPD, antisocial personality disorder (ASPD), or other Axis II disorders. However, in the DSM-III-R definition of SPD, deriving pleasure from the suffering of others was one of the criteria (criterion 4, Table 1), but was not necessary to make the diagnosis. The omission of this criterion has since been questioned by Berger *et al.*[13] and Kaminer and Stein,[14] among others, who have found that the application of this criterion as compulsory for the diagnosis of SPD helps differentiate this disorder from ASPD and sadistic acts that are contextually motivated.

Clinical descriptions of SPD suggest that the disorder consists of features that span behavioral, interpersonal, cognitive, and affective domains.[15–17] Sadistic individuals have poor behavioral controls, manifested by a short temper, irritability, low frustration tolerance, and a controlling nature. From an interpersonal standpoint, they are noted to be harsh, hostile, manipulative, lacking in empathy, coldhearted, and abrasive to those they deem to be their inferiors. Their cognitive nature is considered rigid and prone to social intolerance, and they are fascinated by weapons, war, and infamous crimes or perpetrators of atrocities. Sadists classically are believed to seek social positions that enable them to exercise their need to control others and dole out harsh

punishment or humiliation. For this reason, some have postulated that there is a higher prevalence of sadism among individuals who work in such settings as law enforcement, correctional facilities, the military, government, and the justice system.[14] In addition, several studies have demonstrated a significant sex bias, with most individuals with SPD being male, consistent with the theoretical literature and clinical findings.[8,18–20]

Much controversy surrounded the inclusion of SPD as a diagnosis in the DSM-III-R. The most common criticisms were the degree of overlap with other Axis II disorders, the absence of data confirming its reliability and validity, and a perceived potential for misuse (e.g., to lessen criminal responsibility).[16] The lack of studies with data of sufficient strength to demonstrate conclusively the existence of SPD remains the greatest obstacle to acceptance of this disorder. Furthermore, sadistic personality disorder is difficult to study, as those who are afflicted live in relative anonymity, do not commonly seek treatment for their sadistic traits, and conceal their pathology when the social and political climate is not conducive to such behavior.

In a study involving 176 outpatients at a mental health clinic in rural southern Georgia, 14 (8%) patients met the criteria for SPD.[20] Surprisingly, half of the patients who met the SPD criteria also fulfilled self-defeating personality disorder criteria, and a factor analysis failed to divide the criteria cleanly into sadistic and self-defeating subsets. A nonrandom sample of inmates ($n = 41$) from a maximum security prison were classified as either psychopathic or nonpsychopathic, according to the Psychopathy Checklist-Revised (PCL-R), and violent or sexually violent.[21] Psychopaths were found to be significantly more sadistic than nonpsychopaths, and sadism did not differentiate the violent and sexually violent groups. The authors proposed that the study results provided support for the theory that sadism and psychopathy are related or potentially are the same disorder. Murphy and Vess[22] concurred to a degree, suggesting that, in their clinical experience, psychopaths are a heterogeneous group of individuals who, while sharing core personality characteristics, manifest substantial variability in their behavior, including sadism. While conceding that further research was needed to substantiate their claims, these authors proposed four subtypes of psychopathy to account for the variable expressions of this disorder: narcissistic, borderline, sadistic, and antisocial. In a study involving 144 nonpsychotic subjects from an outpatient Veterans Administration clinic, subjects with SPD were noted to be seeking psychiatric care at a younger age with significantly more Axis I and II pathology.[23] The SPD group were also distinguishable from other groups on the basis of family history. The authors concluded that sadistic traits or SPD are associated with reduced functioning, a worse prognosis due to a high likelihood of comorbid illnesses, and a possible familial pattern.

The performance characteristics of the DSM-III-R criteria for SPD have been examined in several studies that demonstrated moderately high positive and negative predictive values, sensitivity, and specificity for all the criteria except criterion 3 (treated or disciplined someone under his or her control unusually harshly) (Table 1).[18,24,25] These studies also found an extremely low correlation between criteria 3 and 7 (restricts the autonomy of people with whom he or she has a close relationship) and the presence or absence of the disorder. Spitzer *et al.*[9] and Fiester and Gay[15] similarly found the diagnostic criteria to have fairly high sensitivity, with the exception of criteria 3 and 5 (has lied for the purpose of harming or inflicting pain on others). These studies suggested a high specificity for all of the criteria. Overall, they supported criteria 1 (has used physical cruelty or violence for the purpose of establishing dominance in a relationship) and 4 (is amused by, or takes pleasure in, the psychological or physical suffering of others) as having the greatest internal validity, while criteria 3 and 7 appeared to have the least validity. However, it has been difficult to replicate these findings in later studies.[13] Only one study to date has examined interrater reliability to evaluate the external validity of the DSM criteria.[18] Using clinical psychologists with master's level training to evaluate the study subjects, the authors found an 85 percent interrater reliability for SPD. This finding has yet to be replicated, and no studies have explored adequately other external validators such as course of illness, response to treatment, and family history. Data reported by Gay[8] perhaps have demonstrated the most credible support for the validity of SPD. The author noted that 12 (5%) of 235 consecutive male adults accused of child abuse met DSM-III-R criteria for the diagnosis of SPD, with 10 of these 12 having no evidence of another Axis II disorder. Nonetheless, given the lack

of sufficient evidence to support the validity of SPD as a diagnosis, it was not included in the DSM-IV.

An accurate estimate of the general prevalence of SPD is challenging given the limited, nongeneralizable populations studied, smaller sample sizes, the overall limited number of studies conducted, and the various diagnostic procedures used. Millon and Tringone (1989, unpublished data) reported SPD prevalence of three percent in a sample of outpatients,[15] while Freiman and Widiger[18] diagnosed 18 percent of psychiatric inpatients with SPD using the Personality Interview Questionnaire-II. Shedler and Westen,[24] in polling a national sample of psychiatrists and psychologists using the Shedler-Westen Assessment Procedure (SWAP–200), found sadistic personality disorder represented in 19 (4%) of 530 patients.[24] In a biographical analysis of serial killers, Stone[26] reported that 90 percent of the study group met DSM-III-R criteria for SPD, higher than the prevalence of any other personality disorder in this sample. In a study of 30 consecutively admitted male sex offenders incarcerated at a prison treatment facility, Berner *et al.*[27] documented a 30 percent prevalence of SPD. However, in a later study assessing 70 sex offenders by using the International Personality Disorder Examination, these same authors demonstrated a similar prevalence as in their previous study, but failed to find evidence that supported the existence of SPD as a discrete disorder.[13] They echoed the sentiments of other experts in noting that the poor differentiation from other personality disorders—in particular, antisocial personality disorder—makes it difficult to support SPD as a diagnostic entity at this time.

While data are sparse concerning SPD in adults, even less is known about this disorder in adolescents. To our knowledge, there is only one study in the literature that focuses on SPD in minor populations. In studying a group of 14 sexual homicide offenders by using the Schedule for Nonadaptive and Adaptive Personality (SNAP) and the State-Trait Anger Expression Inventory (STAXI), among other instruments, Myers and Monaco[28] found that the 4 (31%) subjects who met criteria for sadistic personality had significantly higher Anger-Out scale scores than did those without the disorder and were also higher on the Trait Anger scale to a marginally significant degree. Anger-Out measures the degree to which angry feelings are expressed toward other people or objects, while Trait Anger describes the disposition to experience angry feelings as a personality trait. Myers and Monaco suggested that their findings lend tentative support to the validity and utility of sadistic personality disorder as a diagnosis in younger forensic populations, although they concluded that much more research is needed for conclusions to be drawn, given the small sample of adolescent populations studied.

Despite not being a recognized diagnostic entity for consideration since the advent of the DSM-IV in 1994, SPD stubbornly continues to surface in the psychiatric and forensic literature as a subject of interest.[7,13,14,21,22,26,28] However, few studies have focused on this disorder and its presentations in children and adolescents. This article describes the results of an exploratory study that (1) examined for the presence of sadistic personality characteristics in psychiatrically hospitalized adolescents, and (2) examined comorbid Axis I and personality disorder patterns in those youth meeting criteria for SPD or SPD traits. The rationale for this study was based on an incidental observation of the authors that a significant minority of inpatient adolescents undergoing routine personality assessment unexpectedly were found to meet criteria for SPD.

Methods

Subjects

The study population consisted of 70 consecutive admissions to a university hospital adolescent psychiatric inpatient program over a one-year period. An inpatient unit was thought to be optimal for the purposes of this study, because it provided a setting that was conducive to a more thorough evaluation of Axis I and II conditions. This unit treated a diverse patient mix, with referrals mostly from mental health professionals, community agencies, hospital emergency departments, schools, and families. Although a myriad of disorders was encountered in this population, suicidality or aggression toward others were two of the more common reasons for admission.

Study exclusion criteria included the presence of mental retardation, pervasive developmental disorder, psychosis, or a hospital stay of less than one week. According to these criteria, three subjects with verbal IQ less than 70, four with psychosis, three with a hospital stay of less than seven days, and subjects with incomplete data sets were excluded. In addition, 2 subjects refused participation in the protocol, leaving 56 subjects (19 males and 37 females) in

the study. This included 50 (89%) whites and 6 (11%) African Americans, with a mean age of 15.23 ± 0.89 years (range, 14–17). The mean Wechsler (WISC-R) full-scale IQ was 98.68 ± 14.77 (range, 69–126). The Hollingshead-Redlich socioeconomic status (SES) distribution[29] was primarily (60%) from Social Classes IV and V. Many of these adolescents were from disadvantaged backgrounds, were no longer living with their biological parents, or were in foster care or other community settings.

Instruments

DSM-III-R diagnoses were determined using structured interviews for the presence of Axis I and II personality disorders. The diagnostic instruments utilized in this study covered all the major categories of Axis I and II disorders in children and adolescents, including those diagnoses classically related to anger and aggression (e.g., conduct disorder, oppositional-defiant disorder, and SPD). The diagnostic evaluations performed for the purpose of this study were also used to guide the clinical treatment of the study subjects during hospitalization and after discharge.

The Diagnostic Interview for Children and Adolescents, Adolescent Version (DICA-R-A, draft 6-R, revised January 1990) is a fully structured diagnostic interview for adolescents aged 13 to 17 years that has a high degree of reliability and validity and covers a broad range of current and past DSM-III-R Axis I disorders.[30,31] Both adolescent and parent (guardian) interviews were obtained. The Schedule for Affective Disorders and Schizophrenia for School Age Children, Epidemiologic (1987) Version (K-SADS-E) is a semistructured diagnostic interview for children aged 6 to 17 years that also covers both current and past DSM-III-R Axis I diagnoses and, like DICA, has a well-established high degree of reliability and validity.[32,33] In the present study, only the panic disorder and agoraphobia sections of the K-SADS-E were utilized to complement the DICA anxiety spectrum diagnostic coverage.

The Structured Interview for DSM-III-R Personality Disorders-Revised (SIDP-R) is a highly reliable and valid semistructured diagnostic interview that covers DSM-III-R personality disorders.[34] The proposed personality disorders, self-defeating and sadistic, are included. The instrument allows for additional interview input from a parent or guardian on some questions. Although designed for use in adults, the SIDP-R has been used in adolescents with acceptable results.[35,36] Specific examples from the subject's life experiences are elicited to confirm or eliminate a given criterion. This content-oriented format was thought to be ideal for adolescents because accurate determination of the frequency, duration, pervasiveness, and severity of a given character trait is critical in making personality diagnoses. In determining Axis II disorders, we were mindful of ensuring that the given features of the condition were present in the study subjects for at least one year, in compliance with the requirements of the DSM-IV-TR. Because a few SIDP-R topic areas were clearly age related, some questions were modified to fit the equivalent adolescent developmental stages better (e.g., the word "school" was substituted for "work" where appropriate). The antisocial personality disorder section was not used in this study, because this diagnosis is not applicable to adolescents under age 18, according to the DSM-IV-TR.

Procedure

The research was approved by the University of Florida College of Medicine Institutional Review Board. Consent was obtained from both the subjects and their parents (or guardians) before participation. The structured diagnostic interviews were administered during the later part of the subject's hospitalization, to minimize any influence of acute hospitalization, active crisis situations, and severe untreated affective syndromes. In addition, in administering the SIDP-R, the interviewers strove to separate stable personality patterns from those limited solely to periods of stress or affective illness. The adolescent subjects required occasional reminders and the use of examples to distinguish pervasive, enduring behavioral patterns and personal characteristics from those that were transient or related solely to a specific circumstance (i.e., current hospitalization, abuse, legal problems, and parental divorce).

In most of the subjects a parental interview was also completed, although in some cases, substitute information had to be obtained from guardians or guardian substitutes (caseworkers, therapists, and unit personnel with extensive contact with the subject). Because of the time-consuming nature of conducting structured interviews, the DICA-R-A and SIDP-R were administered by different interviewers. Most of the DICA-R-A interviews were administered by one author (W.C.M.), but a PhD level clin-

Table 2 Demographic Characteristics

	Sadistic Group (n = 18)	Nonsadistic Group (n = 38)	Significance
Gender (male/female)	6/12	13/25	χ^2 = 0.00419255, df = 1 p = 0.948373
Age (average in years)	15.17 ± 0.79	15.26 ± 0.92	T = 0.3569685, df = 54 p = 0.722900
Race (white/African American)	16/2	34/4	p = 1.000*
SES (classes IV–V)	11 (61%)	22 (58%)	χ^2 = 0.0522078, df = 1 p = 0.819265
Full-Scale IQ (average)	95.1 ± 15.9	100.4 ± 14.1	T = 1.260882, df = 54 p = 0.210300

* Fisher exact test (two-tailed).

ical child psychologist, a child psychiatry fellow, a psychology research assistant, and a medical student research assistant also conducted some of the interviews. The SIDP-R was administered by two of the authors (R.C.B., W.C.M.) and the aforementioned clinical child psychologist, with the authors administering nearly all of the interviews. Training for the interviewers included familiarization with the needed diagnostic criteria and interview formats, passively scoring interviews conducted by the authors, and finally conducting interviews under supervision until 90 percent interrater agreement on diagnosis was achieved. Average κ coefficients[37] of 0.69 for the DICA-R-A and 0.72 for the SIDP-R were achieved (moderate interrater reliability) on a random sample of interviews (15% of subjects) that were simultaneously scored by two raters.

The instruments were scored in accordance with the guidelines suggested by their authors. In this study, only the current diagnoses were utilized. Subject responses were reviewed for accuracy by comparing the findings with clinical data obtained during the hospitalization and from the history, as available. Although only rarely necessary, diagnostic interview responses that were clearly inaccurate (i.e., exaggeration or symptom fabrication) were amended after review. Discrepancies between adolescent reports and informant data were resolved by consensus agreement of two authors (W.C.M., R.C.B.). Generally, internal feelings and subjective attitudes were assumed to be most accurately portrayed by the adolescent, whereas observable behavior and historical facts were assumed to be more reliably reported by other informants. In this study, parental interviews rarely negated any diagnosis endorsed by the adolescent. Most often, they tended to strengthen the known criteria or, in a few instances, add new diagnoses. Therefore, while the final diagnoses in this study are based primarily on the structured interview results, they should be considered "best-estimate" diagnoses, incorporating the multiple information sources available. The utilization of multiple information sources in diagnostic decision-making and the concept of best-estimate diagnoses have been discussed elsewhere.[38]

Data Analysis

The Axis I and II diagnostic patterns of subjects with the diagnosis of sadistic personality disorder or traits were compared with those of the subjects without sadistic personality characteristics. Differences between the groups were analyzed with the Student's t test, chi-square test, or Fisher exact (two-tailed) test as appropriate, to determine level of significance.

Results

The SIDP-R showed 8 (14%) of the 56 subjects meeting full criteria for sadistic personality disorder (they met at least four of the eight criteria necessary for diagnosis; Table 1) and an additional 10 (18%) with sadistic traits (they met three of eight criteria—one criterion short of a full diagnosis). These 18 individuals constituted the Sadistic Group (32%), and the remaining 38 study subjects the Nonsadistic group (68%). The demographic characteristics of the two groups are compared in Table 2. The groups were similar in age, gender, race, socioeconomic status, and intelligence.

Axis I comorbidity was extensive in both groups. Table 3 compares the frequencies of commonly occurring Axis I disorders in the Sadistic Group with those of the Nonsadistic Group. In addition to the disorders included in Table 3, the Sadistic Group

Table 3 Common Axis-I Disorders in the Sadistic and Nonsadistic Groups

	Sadistic Group (n = 18)	Nonsadistic Group (n = 38)	Significance
ADHD	4 (22)	6 (16)	$p = 0.711$*
Conduct Disorder	12 (67)	13 (34)	$\chi^2 = 5.2064$, $df = 1$ $p = 0.022504$
ODD	2 (11)	8 (21)	$p = 0.474$*
Substance Abuse	11 (61)	9 (24)	$\chi^2 = 7.45211$, $df = 1$ $p = 0.006336$
Major Depression	13 (72)	16 (42)	$\chi^2 = 4.43716$, $df = 1$ $p = 0.035165$
Dysthymia	5 (28)	11 (29)	$p = 1.000$*
Any Affective Disorder	15 (83)	22 (58)	$p = 0.076$*
Overanxious Disorder	4 (22)	9 (24)	$p = 1.000$*
PTSD	3 (17)	4 (11)	$p = 0.669$*
Phobia	5 (25)	6 (16)	$p = 0.305$*
Separation Anxiety Disorder	3 (17)	2 (5)	$p = 0.314$*
Panic Disorder	2 (11)	3 (8)	$p = 0.652$*
OCD	3 (17)	3 (8)	$p = 0.374$*
Any Anxiety Disorder	9 (50)	15 (39)	$p = 0.774$*

* Fisher exact test (two-tailed). Data are number of patients (percentage of total group).

had three (17%) subjects with enuresis and two (11%) with somatoform disorder. The Nonsadistic Group also had one (3%) subject with bipolar disorder, one (3%) with encopresis, two (5%) with anorexia nervosa, one (3%) with bulimia, and one (3%) with eating disorder-NOS.

Within the Sadistic Group, the most common diagnoses were major depression (72%), conduct disorder (67%), and substance abuse (61%). These three disorders were each statistically more frequent in the Sadistic Group than in the Nonsadistic Group. The most common diagnostic categories in the Nonsadistic Group were major depression (42%), conduct disorder (34%), and dysthymia (29%). Fourteen of the 18 (78%) subjects in the Sadistic Group had diagnoses of disruptive behavior disorder (ADHD, conduct disorder, and/or oppositional defiant disorder) in comparison with only 58 percent in the Nonsadistic Group, although this difference did not reach statistical significance. There was a trend ($p = .076$) for any affective disorder (major depression, dysthymia, and/or bipolar disorder) to be more common in the Sadistic Group.

Axis II personality comorbidity was also common in both groups. Table 4 compares the frequencies of the various personality disorders in the Sadistic Group with those in the Nonsadistic Group. Passive-aggressive was the most common personality disorder in both groups, followed by histrionic, borderline, and self-defeating. No schizoid or schizotypal

Table 4 Personality Disorders in the Sadistic and Nonsadistic Groups

	Sadistic Group (n = 18)	Nonsadistic Group (n = 38)	Significance
Paranoid	6 (33)	6 (16)	$p = 0.171$*
Histrionic	9 (50)	9 (24)	$\chi^2 = 3.878116$, $df = 1$ $p = 0.048920$
Borderline	11 (61)	5 (13)	$\chi^2 = 13.76257$, $df = 1$ $p = 0.000207$
Narcissistic	5 (28)	3 (8)	$p = 0.095$*
Obsessive-Compulsive	6 (33)	4 (18)	$p = 0.060$*
Passive-Aggressive	14 (78)	17 (45)	$p = 0.024$*
Dependent	6 (33)	5 (13)	$p = 0.146$*
Avoidant	4 (22)	4 (11)	$p = 0.254$*
Mixed	1 (6)	0 (0)	$p = 0.321$*
Self-Defeating	9 (50)	7 (18)	$\chi^2 = 5.968421$, $df = 1$ $p = 0.014564$

Data are as in Table 3.
* Fisher exact test (two-tailed).

Table 5 Comparison of Means for Axis I and Personality Disorders

	Sadistic Group (n = 18)	Nonsadistic Group (n = 38)	Significance
Axis I Dx/Subject	4.000 ± 2.196	2.526 ± 1.983	T = 2.5094, df = 54 $p < .05$
Personality Dx/Subject	4.389 ± 2.682	1.579 ± 1.588	T = 4.9155, df = 54 $p < .001$

personality disorder diagnoses were generated by the structured interview. When compared with the Nonsadistic Group, the Sadistic Group had significantly more subjects with histrionic, borderline, passive-aggressive, and self-defeating personality disorders.

Seventeen (94%) of the 18 subjects in the Sadistic Group had at least one other personality disorder in addition to SPD or SPD traits. Twelve (32%) subjects in the Nonsadistic Group had no personality disorder diagnosis. However, diagnosis of more than one personality disorder in the same individual was common in both groups. The number of personality disorder diagnoses in the Sadistic Group ranged from 1 to 10 and in the Nonsadistic Group ranged from 0 to 5.

Subjects with multiple Axis I disorders were also common in both groups. All subjects in the Sadistic Group had at least one Axis I disorder generated by the structured interviews (range, 1–9). In the Nonsadistic Group, 32 (84%) individuals had at least one Axis I diagnosis generated by the structured interviews (range, 0–8). The remaining 6 of 38 subjects in this group had the clinical diagnosis of adjustment disorder, a diagnosis not covered by the structured interviews.

Table 5 compares the number of Axis I and personality diagnoses per subject in the Sadistic Group with those in the Nonsadistic Group. Overall, the Sadistic Group had significantly more Axis I and personality disorder diagnoses per subject.

The groups had very similar gender distributions: the Sadistic Group was 33 percent male and 67 percent female, and the Nonsadistic Group was 34 percent male and 66 percent female. Although the small number of subjects in some categories precluded formal statistical analyses for gender-specific diagnosis differences, the groups overall were quite similar, and some observations can be offered. In both groups, the males had more conduct disorder diagnoses, whereas the females tended to have more diagnoses of anxiety, depression, histrionic personality disorder, borderline personality disorder, and self-defeating personality disorder. The females in both groups also had more personality disorder diagnoses per subject. Females in the Sadistic Group had more Axis I diagnoses per subject. However, in the Nonsadistic Group, the males had slightly more Axis I diagnoses per subject, primarily due to their tendency to have more disruptive behavioral disorders.

Discussion

In this study of hospitalized adolescents, we were surprised to find that 14 percent of the sample met criteria for SPD. This level of diagnostic incidence is typically associated with criminal or forensic populations rather than inpatient samples. It is possible that the greater presence of conduct disorder in the Sadistic Group (two-thirds versus one-third in Nonsadistic Group) contributed to their meeting SPD criteria, given the general overlap in aggressive themes between these two diagnostic categories. A high prevalence of conduct disorder in adolescents with SPD has been reported previously. In a study of 14 juvenile sexual homicide offenders, all 4 of the adolescents diagnosed with SPD were noted to have comorbid conduct disorder.[39] In many cases, perhaps up to half, depending on the study, conduct disorder in youth predicts the development of ASPD in adulthood.[40–42] Some researchers theorize SPD is a subgroup of the latter. If SPD truly is a subgroup of ASPD, and conduct disorder has a high incidence of progression to ASPD, then this also may explain the high prevalence of conduct disorder in the patients with SPD.

The degree to which SPD is influenced by progression of the affected individual through adolescence and early adulthood or the likelihood of SPD to persist over the developmental trajectory is unknown. Follow-up studies of the adolescents at hand would be necessary to determine the stability of their SPD personality characteristics and associated degree of clinical relevance as they progressed into adulthood.

These adolescent subjects with sadistic personality characteristics had extensive Axis I and II psychiatric comorbidity patterns that were prominent, even in comparison to a group of hospitalized peers. Thus, at least in the present sample, the presence of sadistic personality disorder in adolescents served as an indicator for a heightened degree of other psychopathology as well. Our sample size and limitations do not allow for generalization of these results to other adolescent populations.

Seventeen of 18 subjects in the Sadistic Group were noted to have at least one other personality disorder in addition to SPD or SPD traits. Multiple Axis II diagnoses per participant are a common outcome in personality disorder research, particularly in psychiatric populations (both adolescent and adult). Nonetheless, this overlap limits the ability of our findings to support the proposition that SPD may be a distinct diagnostic entity in younger populations. Demonstrating the diagnostic validity of a personality disorder includes the need for its criteria to have high positive predictive value, sensitivity, specificity, and interrater reliability.

Another possible contributor to multiple personality disorder diagnoses in this sample was that of Axis I disorder symptom spillover in the Axis II domain. Efforts were made to separate enduring personality characteristics from those related to Axis I disorders. However, this separation was found to be easier in the case of episodic mood disorders than in more chronic conditions such as conduct or oppositional defiant disorder, in which the criteria can be difficult at times to separate cleanly from those of certain Axis II conditions (i.e., Cluster B or passive-aggressive personality disorders).

An interesting finding in this study was the relatively large number of females who demonstrated SPD or SPD traits ($n = 12$). Epidemiological studies demonstrate that the great majority of individuals with SPD are male, leading one to predict that our sample—despite consisting of a large majority of females—still would have yielded far fewer females with SPD characteristics. However, both the Sadistic and Nonsadistic Groups comprised approximately the same ratio of females, and therefore the data were not skewed by a disparate number of females in one study group versus the other. Considering that most of the data on SPD to date involve only male populations, we are hesitant to go too far in theorizing what this finding may indicate. Perhaps the unexpected number of females noted to have SPD in this study is reflective of the national trend in which an increasing percentage of female youth are noted to be committing criminal acts or engaging in other problem behavior compared with males.[43] Alternatively, our findings may simply be age related, with females having a greater propensity than males to outgrow the diagnosis. If this is the case, it may explain the preponderance of males in the adult SPD population. At a minimum, such SPD characteristics in female adolescents, and in male youths also, highlight the need for clinical attention to assess the ultimate significance of such personality characteristics in the youths' lives.

Other limitations in this study deserve mention. It is important to note that since the subjects had emotional and behavioral problems of a severity requiring psychiatric hospitalization, the study was biased from the outset toward inclusion of individuals with a high degree of both Axis I and personality comorbidity. Therefore, the results of this investigation cannot be generalized to other adolescent populations, such as outpatients. In addition, although to our knowledge this is the first study to focus on sadistic personality and its comorbidity in hospitalized adolescents, the sample size was relatively small, limiting the scope of our conclusions. Larger study samples would allow further analysis for possible patterns of linkage of Axis I and II diagnoses. Finally, we are aware of the relative difficulty in diagnosing personality disorders in adolescents, and the caution required in doing so. The DSM-IV does allow personality disorder diagnoses to be made in minors if the symptomatology is pervasive, persists for more than a year and is felt not to be limited to a particular developmental stage or an Axis I disorder.[6]

Many mental health experts agree that sadistic personality disorder exists as a genuine clinical entity. While various researchers have attempted to differentiate sadistic from other personality disorders, they have generally failed to demonstrate a clear separation. Overlap among personality disorders is common, and it does not necessarily preclude the existence of a given disorder. In fact, even in nonpsychiatric disorders, markedly different medical diseases also frequently share criteria (e.g., cardiac conditions sometimes clinically present as gastrointestinal disorders, and vice versa, or they can exist concurrently). Personality disorders are therefore similar to general medical illnesses, in that shared

criteria may or may not indicate a singular underlying disease process. Most adult studies that have explored the existence of SPD in patient populations find antisocial personality disorder to be the disorder with the highest comorbidity.[13] This finding is not inconsistent with our findings, in that conduct disorder, the progenitor of antisocial personality disorder, was the second most common finding in our sample behind affective disorders.

Another point to consider is that the high comorbidity between antisocial personality disorder and SPD and, in our sample, between conduct disorder and SPD may be due to the DSM-III-R criteria's being insufficiently specific. It is possible that the degree of overlap between SPD and other Axis II disorders would be significantly reduced with a formulation of more stringent diagnostic criteria. For instance, in the diagnosis of SPD, it is important to differentiate between those who commit cruel acts in the pursuit of pleasure or a thrill from those whose violence is due to an aggressive nature, as a byproduct of committing crimes, as a manner of coping (as in those conditioned by a hostile or coercive environment), or as a result of fervent political or ideological beliefs. One potentially important revision that may yield greater specificity would be to make a pleasure/gratification criterion (Table 1, criterion 4) compulsory for the diagnosis of SPD.

The concern voiced by some forensic psychiatrists over the potential misuse of this diagnosis to mitigate responsibility for violent crime[9] should have no bearing on whether the diagnosis is deemed to exist. The judicial or political potential for a psychiatric diagnosis to affect responsibility for a crime is not relevant to the existence of a disorder from a scientific standpoint. It is the responsibility of the judiciary to determine the influence mental illness has on legal outcomes, while the role of the mental health professionals remains to understand, describe, diagnose, and treat psychopathology. Furthermore, in practice, a personality disorder generally serves only as a partial explanation—not as an excuse—for criminal actions. Thus, while Axis II disorders may provide mitigating circumstances, rarely do they absolve defendants from legal culpability. Therefore, it is our opinion, along with others who have criticized this line of reasoning,[17] that such an argument is an unreasonable obstacle to the acceptance or rejection of SPD as a DSM disorder. Hopefully, with time, impartial research will determine its ultimate fate.

In summary, we believe our findings suggest that there is a need for further studies that investigate the potential presence and meaning of SPD or SPD traits in adolescent populations of different kinds (i.e., youth involved in the juvenile or adult justice systems and those who commit serious violent crimes). Longer term studies are needed, with larger populations and using modified criteria that at a minimum require the presence of criterion 4 (Table 1) to make a definitive SPD diagnosis. Using criterion 4 as mandatory for the diagnosis of SPD in future studies may increase the validity of SPD as a diagnosis and decrease the overlap currently noted with other Axis II diagnoses, perhaps ultimately facilitating the inclusion of SPD in future editions of the DSM, if warranted. Ideally, these future studies could follow youths into adulthood to assess the stability of these personality characteristics and their prognostic implications. Such research not only could assist in better determining the phenomenology and etiology of this enigmatic disorder, but might also have intervention and treatment implications. In many ways, the research to date on SPD raises far more questions than it answers. We believe the jury is still out on the validity of SPD as an independent diagnostic entity.

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