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PERSONALITY DISORDERS IN MEN WITH SEXUAL AND VIOLENT CRIMINAL OFFENSE HISTORIES

Marc Schroeder, MD, Joel Simeon Iffland, MD, Andreas Hill, MD, Wolfgang Berner, MD, and Peer Briken, MD

Little is known about personality disorders (PDs) in offenders with histories of both sexual and (nonsexual) violent offenses. This study aimed to identify possible differences of PD profiles across three different offender groups with both sexual and violent (S+V), only sexual (S), and only violent (V) offenses. Nonviolent (N) offenders were used as a comparison group. Typing of individuals according to their offensive histories was performed on the basis of 259 psychiatric court reports that included the Structured Clinical Interview (SCID)-II for PD diagnostics. Men from the S+V group committed significantly more acts of rape and sexual coercion than the mere sexual offenders. Furthermore, S+V offenders showed the highest rates of PDs overall (68.3%), with every second offender being diagnosed with an antisocial PD and every third offender with a borderline PD. In summary, the results suggest that S+V offenders form a group of individuals with remarkable differences regarding PD profiles, the relatively highest frequencies of conduct disorders, familial addictive problems, and PDs overall.

The impact of mental disorders in sexual (S) and (nonsexual) violent (V) offenders has drawn much attention in forensic and general psychiatry. Investigations in this field have shown that mental disorders such as alcohol and drug abuse, anxiety and affective disorders, and personality disorders (PDs) are prevalent in both offender groups, and that mental disorders may increase the risk of reoffending considerably (Brennan, Mednick, & Hodgins, 2000; Dunsieth et al., 2004; Grann, Danesh, & Fazel, 2008). To date, several studies have investigated the mental health state of either S or V offenders. However, very few studies have analyzed the differences between these two offender groups, and no study has done so with respect

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From Institute for Sex Research and Forensic Psychiatry, University Hospital Hamburg (M. S., J. S. I., A. H., W. B., P. B.); and Goethe University Frankfurt (M. S.).

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Address correspondence to Marc Schroeder, Department of Psychiatry, Psychosomatic Medicine & Psychotherapy, Goethe University Frankfurt, Heinrich-Hoffmann-Str. 10, 60528 Frankfurt/Main, Germany; E-mail: marc.schroeder@kgu.de

to personality traits or PDs (Gudjonsson & Sigurdsson, 2000; Serin & Mailloux, 2003). However, it is commonly accepted that the group of S offenders comprise individuals who commit very different types of crimes, ranging from child abuse to rape and sexual homicide. The same heterogeneity also applies to the group of V offenders. Research and clinical practice provide sound evidence that S and V offenders differ with respect to personality: S offenders exhibit more introverted, schizoid, obsessive/compulsive, and avoidant traits (Fazel, Hope, O'Donnell, & Jacoby, 2002), while V offenders are predominantly characterized by antisocial and aggressive traits (Craig, Browne, Beech, & Stringer, 2006). Although a high number of persons detained or assessed for S offenses also have a history of violent crimes and behaviors, this group with combined sexual and violent offenses (S+V offenders) remains largely uncharacterized.

To our knowledge, no study has examined this third type of combined S+V offenders in relation to either S or V offenders. The aim of this study was to try to fill this gap with an analysis regarding PDs in S+V offenders. On the basis of previous comparisons between S and V offenders, we hypothesized that the S+V offender group might have the relatively highest prevalence of PDs, with predominantly cluster B pathology characteristic of V offenders and cluster C pathology characteristic of S offenders.

METHODS

PARTICIPANTS

We reviewed 259 out of 486 offenders' forensic psychiatric examinations conducted between 2001 and 2007 at the Institute for Sex Research and Forensic Psychiatry, University Hospital Hamburg–Eppendorf, Germany. At the time the offenders were examined, psychiatric reports were drawn up to assess their criminal responsibility or risk assessment prior to release or to changes in security levels of imprisonment or stay in a forensic psychiatric hospital. Reports were requested by district courts and public prosecution authorities in the federal state of Hamburg, Germany. Besides diagnostic evaluations, the reports included demographic data on age, nationality, and information regarding education and employment. Furthermore, these forensic reports supplied data on familial psychiatric and substance abuse problems involving close relatives (e.g., parents or siblings) and possible histories of being abused sexually, physically, or in both ways as a child. In addition, the reports included psychiatric clinical conditions of all offenders prior to the age of 16 regarding conduct and substance/alcohol abuse disorders or a combination of both, as shown in Table 1 Information stemmed from extensive forensic psychiatric evaluations plus previous investigations, criminal records, court decisions, and psychiatric or medical evaluations provided by courts and prosecution authorities.

We sought to include only those reports for which the Structured Clini-

TABLE 1. Sociodemographic Characteristics of Offender Groups

Variable/Offenders	S+V (*n* = 60)	S (*n* = 61)	V (*n* = 99)	N (*n* = 39)	*p* value
Age, yrs: mean *(SD)*	38.8 (9.6)	39.8 (11.5)	34.9 (10.8)	38.2 (11.9)	.030
	—	39.8 (11.5)	34.9 (10.8)	—	.042[a]
Nationality, %					
German	90.0	86.9	82.8	74.4	*ns*
Turkish	0	4.9	6.1	5.1	*ns*
Others	10.0	8.2	11.1	20.5	*ns*
Graduation from school, %					
None	15.0	23.0	17.2	12.8	*ns*
School for mentally handicapped	5.0	4.9	6.1	2.6	*ns*
High school, 8th–10th grade (Hauptschule)[b]	48.3	39.3	44.4	33.3	*ns*
High school, 10th grade (Realschule)[b]	26.7	21.3	19.2	28.2	*ns*
High school diploma, 12th grade	5.0	11.5	13.1	23.1	*ns*
Employment[c], %					
Full-time	25.0	34.4	26.3	12.8	*ns*
Unemployed	33.3	27.9	28.3	35.9	*ns*
Family problems, %					
Addiction	41.7	18.0	23.2	15.4	.006
Psychiatric disease	1.7	6.6	4.0	0	*ns*
Addiction and psychiatric disease	3.3	1.6	7.1	10.3	*ns*
History of abuse as a child, %					
Sexual	10.0	14.8	5.1	0	.030
Nonsexual	31.7	23.0	28.3	17.9	*ns*
Sexual and Nonsexual	11.7	9.8	8.1	2.6	*ns*
History until age of 16, %					
Substance (alcohol/drug) abuse	3.3	1.6	2.0	10.3	*ns*
Conduct disorder	45.0	26.2	30.3	17.9	.026
Conduct disorder and substance abuse	6.7	8.2	14.1	7.7	*ns*

[a]Posthoc analysis plus Bonferroni correction revealed that statistical significance is due to the difference between the groups of S and V offenders only, differing by 4.8 years (95% CI 1.3–8.3 years, $p = .042$).
[b]Designations "Hauptschule" and "Realschule" refer to the German school system of secondary education. The Realschule offers a more advanced curriculum than the Hauptschule.
[c]Other forms of employment or work situations were found in only a very limited numbers of offenders and are therefore not shown. They comprise half-time employment, working in a protected situation, outwork, housekeeping, military service, and pension.

cal Interviews (SCID)-II for diagnosing Axis II disorders according to the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (*DSM-IV*; American Psychiatric Association, 1994) using a personality questionnaire and an interview were complete. Therefore, 179 forensic psychiatric reports had to be omitted from the present study either because a SCID-II-interview was inappropriate due to psychotic symptoms or severe cognitive impairment of the subject at the time of assessment or because the interview and/or questionnaire was refused or incompletely answered during the evaluation. An additional 48 cases were omitted because subjects refused interviews regarding developmental background (25 cases) or offenders were female (23 cases). Twenty-two of the 23 omitted female subjects would have been typed as N offenders, whereas the remaining female offender would have been regarded as a V offender. All other deleted files were evenly distributed among the four offender groups.

All subjects of this study gave informed consent to use their forensic psychiatric reports for scientific purposes, and they were informed that a denial or later withdrawal of their given consent at any time would have no influence on their respective psychiatric reports.

ASSESSMENT OF OFFENDER TYPE

Offenders were typed into four categories according to the crimes committed as deduced from criminal records and self-reports: (1). Sexual and violent (S+V) offenders with histories of sexual offenses such as rape, sexual coercion, and child molestation, and violent offenses such as homicides or assaults. (2) Sexual (S) offenders with histories of exclusively sexual offenses. (3) Violent (V) offenders with histories of exclusively violent offences. (4) Nonviolent (N) offenders formed a comparison group. Other sexual offenses comprised voyeuristic and exhibitionistic offenses. Information on offenses that led to a forensic assessment are presented in Table 2.

Crucial for typing offenders as, for example, V offenders was that not only the index offense to initiate a forensic evaluation was a V offense, but also that an offender's history deduced from his self-report and criminal record was free from any S offense. Therefore, the total forensic history of every subject was taken into account.

DIAGNOSIS OF PD

Owing to the thorough psychiatric examination of each offender during the process of evaluation for forensic purposes, additional external information, such as court and witness reports, former psychiatric and psychological assessments, and medical reports, was always taken into account. Therefore, the diagnosis of PD was not based only on the delinquent's

TABLE 2. Definition of Offender Groups

Variable Crimes committed	S+V[a] Offenders (n = 60) n (%)	S Offenders (n = 61) n (%)	V Offenders (n = 99) n (%)	N Offenders (n = 39) n (%)	p Value
Rape/Sexual coercion	50 (83.3)	32 (52.5)	—	—	<.001
Child molestation	22 (36.7)	34 (55.7)	—	—	.035
Other sexual offense	5 (8.3)	4 (6.6)	—	—	*ns*
Homicide	9 (15.0)	—	20 (20.2)	—	*ns*
Assault/Battery	56 (93.3)	—	85 (85.9)	—	*ns*
Coercion/Extortion/Abduction	15 (25.0)	—	21 (21.2)	—	*ns*
Burglary	40 (66.7)	10 (16.4)	46 (46.5)	9 (23.1)	<.001
Fraud	16 (26.7)	7 (11.5)	33 (33.3)	14 (35.9)	.012
Narcotics act offense	9 (15.0)	4 (6.6)	23 (23.2)	6 (15.4)	.049
Arson	0 (0)	0 (0)	8 (8.1)	7 (17.9)	<.001
Traffic offense	25 (41.7)	9 (14.8)	29 (29.3)	7 (17.9)	.004

[a]S+V: Offenders with histories of Sexual and (nonsexual) Violent offenses; S: Offenders with histories of Sexual offenses only; V: Offenders with histories of (nonsexual) Violent offenses only; N: Offenders with histories of Nonviolent offenses.

own statements. Miscellaneous specifics concerning the subject's biographical, forensic, and psychiatric history were included in the process of personality diagnosis over a long period of time, so that forged or prosocial answering of the SCID-II questionnaire and the subsequent interview was made as unlikely as possible. Hence reliable, unequivocal diagnosis of personality pathology, according to the *DSM-IV* definition, was ensured for all participants. Psychiatric diagnoses were performed by psychiatrists with advanced clinical experience, trained to use the SCID-II interview, and familiar with *DSM-IV* diagnostic criteria. Furthermore, all forensic reports were supervised by specialized forensic psychiatrists (A. H., W. B., P. B.), who examined every subject by themselves.

DATA ANALYSIS

Statistical analyses were performed using SPSS for Windows (version 14.0). Frequencies of PDs were compared using chi-square tests, and only corrected *p* values are shown. Bonferroni correction was applied due to multiple comparisons of PD frequencies between offender groups. The mean differences concerning the age of offender groups was analyzed using *t* test and one-way analysis of variance (ANOVA). The significance levels of post-hoc tests were adjusted by Bonferroni correction. All hypotheses were tested at a two-sided, .05 significance level.

RESULTS

STUDY SAMPLE CHARACTERISTICS

The study sample comprised 259 subjects, of whom 60 (23.2%) were S+V, 61 (23.6%) S, 99 (38.2%) V, and 39 (15.1%) N offenders. There were no statistically significant differences between offender groups regarding ethnicity, educational level, and employment rates, while significant differences were revealed for age, family addiction problems, history of sexual abuse as a child, and conduct disorder.

Family addiction problems were highly significant in the group of S+V offenders. Concerning a history of being abused or maltreated as a child either sexually, physically, or in both ways, S offenders were those most frequently sexually abused as a child, followed by the S+V offenders. Physical maltreatment was most frequently present in the groups of S+V and V offenders. Substance abuse before the age of 16 was most frequently reported in the group of N offenders. Furthermore, conduct disorder as a possible antecedent of PDs in later life was most frequently found in the group of combined S+V offenders.

OFFENSE CHARACTERISTICS

Eighty-three percent of the S+V offenders versus 52.5% of the S offenders were accused of or reported for rape/sexual coercion. Furthermore, 55.7%

of the S+V group were child sexual abusers compared to 36.7% of the S offenders (p = .035). Other sexual offenses were fairly evenly distributed between the two offender groups (8.3% in the S+V group and 6.6% in the S group). Regarding violent offenses, we found no statistically significant difference between S+V and exclusively V offenders. Narcotic offenses were committed primarily by V offenders.

PERSONALITY DISORDERS

Overall, PDs were most frequently observed in the S+V offender group, with 68.3% of them being diagnosed with at least one PD. Moreover, subjects matching PD diagnostic criteria account for almost half of the V offenders in our study. Approximately one third of the S offenders and a quarter of the N comparison offender group met the diagnostic criteria for any PD. Antisocial and borderline PDs were the most frequently found Axis II disorders, and highly significant differences between offender groups were revealed for both. Similar to the gross analysis of any PD, subjects in the S+V category showed the highest prevalence of antisocial PD with 50.0%, followed by the V and the S offenders. Borderline PD was prevalent in one third of the S+V compared to 4.9% of the S offender group.

The other cluster A ("odd, eccentric": paranoid, schizoid and, schizotypal), B ("dramatic": histrionic and narcissistic), and C ("anxious": avoidant, dependent, and obsessive-compulsive) PDs were found to be relatively infrequent. However, 13.3% of all S and V offenders as well as 10.3% of the N offenders were categorized as having a PD Not Otherwise Specified (NOS). The schizotypal and dependent PD was not diagnosed even once in this sample, and only three V offenders fulfilled the *DSM-IV* criteria for histrionic PD (Table 3).

Notably, none of the S offenders, only one S+V offender, one V offender, and two N offenders met the diagnostic criteria for obsessive-compulsive PD.

DISCUSSION

This study set out to assess type and frequency of personality pathology in different groups of offenders. In summary, we found PDs highly prevalent in the group of S+V offenders. Statistical analyses showed highly significant differences among the different offender groups regarding the existence of at least one PD, antisocial and borderline PD.

Whereas sexual offenders were previously found to be more schizoid, avoidant, depressive, dependent, self-defeating, and schizotypal, the average prison inmate is characterized by antisocial, narcissistic, and sadistic personality traits (Ahlmeyer, Kleinsasser, Stoner, & Retzlaff, 2003). Furthermore, it is well known that paraphilic sexual offenders, especially child molesters, have higher rates of borderline, histrionic, depressive,

TABLE 3. Prevalence of Personality Disorders According to *DSM-IV* in Sexual and Violent (S+V), Sexual (S), Violent (V), and Nonviolent (N) Offenders

Variable Personality disorder (PD)	S+V offenders (*n* = 60) *n* (%)	S offenders (*n* = 61) *n* (%)	V offenders (*n* = 99) *n* (%)	N offenders (*n* = 39) *n* (%)	*p* value[a]
Any PD	41 (68.3)	20 (32.8)	49 (49.5)	10 (25.6)	<.001
Paranoid PD	2 (3.3)	3 (4.9)	7 (7.1)	2 (5.1)	*ns*[b]
Schizoid PD	3 (5.0)	2 (3.3)	3 (3.0)	1 (2.6)	*ns*
Schizotypal PD	0 (0)	0 (0)	0 (0)	0 (0)	—
Antisocial PD	30 (50.0)	7 (11.5)	27 (27.3)	4 (10.3)	<.001
Borderline PD	20 (33.3)	3 (4.9)	14 (14.1)	3 (7.7)	<.001
Histrionic PD	0 (0)	0 (0)	3 (3.0)	0 (0)	*ns*
Narcissistic PD	3 (5.0)	1 (1.6)	7 (7.1)	1 (2.6)	*ns*
Avoidant PD	2 (3.3)	3 (4.9)	0 (0)	1 (2.6)	*ns*
Dependent PD	0 (0)	0 (0)	0 (0)	0 (0)	—
Obsessive-compulsive PD	1 (1.7)	0 (0)	1 (1.0)	2 (5.1)	*ns*
PD NOS	8 (13.3)	4 (6.6)	7 (7.1)	4 (10.3)	*ns*

[a]*P* values shown are corrected according to Bonferroni.
[b]Statistically nonsignificant *p* values were nonsignificant prior to Bonferroni correction and are indicated by *ns*.

and obsessive-compulsive PDs. In one study, the latter personality trait was significantly related to paraphilic child molestation (Bogaerts, Daalder, Vanheule, Desmet, & Leeuw, 2008). With these studies in mind, we hypothesized that exclusively S and S+V offenders exhibit different sets of PD frequencies: The former have predominantly cluster A PDs because of the presumably higher rate of paraphilic child molesters within that group, whereas the latter have a combination of PDs of S and V offenders and therefore possibly the highest frequency of PD diagnoses. This hypothesis was also driven by the reasonable assumption that offenders committing sexual and (nonsexual) violent offenses form distinct groups of offenders. In this context, our findings do not only support previous findings (Gudjonsson & Sigurdsson, 2000; Craig et al., 2006), as S and V offenders display significantly different distributions of personality traits and disorders. Moreover, the S+V offenders showed very high frequencies of antisocial and borderline PDs. In particular, the relatively low frequency of borderline PD in exclusive S offenders (4.9%) found here has not been described elsewhere. Even in outpatient forensic settings, an average of 28.3%–42.0% of sexual offenders who had been released from prison or were on probation were found to have a borderline PD. In two studies, paraphilic sexual offenders reached even higher borderline PD prevalences of 32.1% (Dunsieth et al., 2004) and 52.0% (McElroy et al., 1999).

If we follow the path of diverse offender types deducible from their PD pathology, our results suggest that men who have committed S+V offenses more closely resemble general (antisocial) V rather than (exclusive) S offenders. Both S+V and V offender groups showed far higher frequencies of antisocial and borderline PDs compared to S and also N offenders. This conclusion is further supported by the fact that the S offenders in our study were recorded as having committed child molestation acts to a sig-

nificantly greater extent and rape and other acts of sexual coercion to a far lesser extent than the S+V offenders. Although it is well known that not all sexual offenders and child molesters suffer from paraphilias and especially pedophilia, one might hypothesize that the higher rate of child molestation acts could be an indicator of a higher frequency of pedophilia in S offenders (Eher, Neuwirth, Fruehwald, & Frottier, 2003). Although we did not analyze the comorbidity of paraphilia with PDs, previous studies suggest that the diagnosis of an obsessive-compulsive PD is significantly related to paraphilic child molestation (Bogaerts et al., 2008; Egan, Kavanagh, & Blair, 2005). Therefore, a high frequency of pedophilia diagnoses ought to be indirectly interpreted as an indicator of a higher rate of obsessive-compulsive PD. It seems feasible that the group of S offenders studied here also comprised a substantial percentage of pedophilic offenders. However, we could not replicate previous findings of obsessive-compulsive and avoidant personality traits in sexual offenders (Fazel, Hope, et al., 2002). Obsessive-compulsive and avoidant traits could be hidden in the relatively high rate of PD NOS diagnoses in our study sample. Secondarily, those sexual offenders chosen for the assessment in the context of court reports might represent the more antisocial ones.

An international survey of studies regarding mental disorders in unselected male prisoners found—irrespective of the type of offense—an average prevalence rate of any PD of 65%, including 47% of the offenders being diagnosed with an antisocial PD (Fazel & Danesh, 2002). Highly selected forensic samples (e.g., sexual offenders in high-security forensic hospitals) might reach a peak prevalence of profound personality pathology of 85% and antisocial PD of 50% (Harsch, Bergk, Steinert, Keller, & Jockusch, 2006). The sexual offender group in the study conducted by Harsch et al. also consisted of offenders with histories of violent offenses (S. Harsch, personal communication, August 2009), like the S+V offender group described here. Despite this apparent resemblance of offender groups by definition of offense histories, prevalence rates for any PD differed considerably: 85% in the Harsch et al. study versus 68.3% in our study sample. Regarding these different findings, it seems reasonable to conclude that the sexual offenders in the Harsch et al. study showed greater psychopathology, so that their placement in high-security forensic psychiatric departments was warranted (positive selection bias).

Considering less selected groups of sexual offenders, who were referred to a residential treatment facility in the United States from prison, jail, or probation, the prevalence rates for antisocial and borderline PDs were nearly identical (55.8% and 28.3%; Dunsieth et al., 2004) to the rates in S+V offenders (50.0% and 33.3%) described here. One possible explanation for this conformity might be that the sexual offenders investigated in the United States also had a legal history of different violent and nonviolent offenses and by this definition fully match our S+V offenders. A second explanation might be that the sexual offenders in the Dunsieth et al.

study were recruited from various settings, which resembles the starting point of our study.

Although psychiatric differences between (nonsexual) violent and sexual offenders are well documented in the literature—the former being more extraverted, hostile, and impulsive, the latter being more introverted and prone to personality psychopathology (Craig et al., 2006)—our results show that this dichotomy applies only when looking at specifically sexual (S) or (nonsexual) violent (V) offenders according to this strict definition. The fact that members of the S+V group showed the highest rate of previous criminal records (with even homicide at 15%), conduct disorders before the age of 16, and borderline and antisocial PDs might indicate a high prevalence of psychopathy (Hare, Hart, & Harpur, 1991). Further studies should elucidate this assumption by the use of the Psychopathy Checklist-Revised (PCL-R) to diagnose psychopathy as a combination of severe antisocial, violent, callous, and narcissistic personality features (Hare, Clark, Grann, & Thornton, 2000).

The high rates of familial addictive problems in the group of S+V offenders are striking among the four offender groups. Data on family histories of substance abuse are relatively scarce, but the Dunsieth et al. (2004) study reported that more than 60% of S offenders had a history of substance abuse in their families . However, elevated rates of drug and alcohol abuse are equally documented for V offenders, with nearly half of them being former or active drug abusers and one fourth of them being alcohol abusers (Looman, Abracen, DiFazio, & Maillet, 2004). With this in mind, the numerous familial addictive problems of the S+V offenders seem comprehensible.

Although we found lower rates, previous findings of S offenders' histories of being victims of sexual abuse were replicated here. The lower frequency we found when compared to the literature, where more than half of sexual offenders and more than a third of (nonsexual) violent offenders reported a history of sexual victimization (e.g., Burton, 2008), might be due to systemic distortions related to the forensic evaluation situation in which our data were collected. Moreover, we assessed sexual victimization using a dichotomous yes/no variable, which may oversimplify the situation and thus foster misinterpretations and produce unreliable information. However, we expected to find far more S+V, S, and V offenders displaying their own histories of sexual abuse.

Regarding conduct disorders, we found S+V offenders to have the highest prevalence among all offenders, followed by the V and S offenders. This finding is in accordance with reports on conduct disorders in juvenile V and S offenders (Van Wijk, Blokland, Duits, Vermeiren, & Harkink, 2007). Moreover, the distribution and frequencies of PDs in this study can be traced back to the distribution of conduct disorders as a "PD in development" across all offender groups and therefore appears to be understandable.

The significant age difference between the groups of S and V offenders seen here, the former being older than the latter, is known from the literature. Moreover, child molesters tend to be older than other sexual and (nonsexual) violent offenders (Gudjonsson & Sigurdsson, 2000).

LIMITATIONS

The present study has several limitations. It was a retrospective study of psychiatric court reports. Subjects were predominantly from the federal state of Hamburg, Germany, and either awaited trial, were already in prison, or were in forensic psychiatric hospitals. Therefore, it might be a representative study cohort for a forensic psychiatric institution that gives routine psychiatric expert reports, but it might not be comparable to more highly selected offender groups, who are either in prison or in a psychiatric institution or who receive outpatient treatment. For those offenders who awaited trial, there is the possibility that they were acquitted in the cases they were accused of, which we were unable to determine. Although supervision of all reports was overseen by specialized forensic psychiatrists, interrater reliability of PD diagnoses was not assessed. Because we included only those psychiatric reports with complete SCID-II interview data in an effort to guarantee reliable and valid PD diagnoses, we selected and reduced the sample size. In this context, the evaluation of absent/false, subthreshold, or threshold/true criteria of the SCID-II interview could be promising in terms of a dimensional approach to personality for future studies. Thus accentuated personality traits that do not allow the diagnosis of PD would not be missed. Another limitation, which applies especially to forensic study subjects, is the frequent denial and distortion of criminal behavior (undetected offenses). Information regarding histories of sexual abuse or substance use for the period of adolescence is also difficult to verify by means of a psychiatric evaluation even if prior judgments or expert opinions are available as in the present study.

IMPLICATIONS

In conclusion, the group of S+V offenders showed the highest frequencies of PDs and thus deserves, as a distinct group of offenders who have committed both sexual and (nonsexual) violent offenses, special attention in forensic examination and treatment. The group of S+V offenders was long disregarded in the forensic and psychiatric literature, so that comparisons with previous studies should always take the definition of offenders into account. Otherwise, S+V offenders are unintentionally overlooked or equated with sexual offenders, although their PD pathology seems to be different. Thus risk assessment and a correct assignment to an appropriate psychiatric and psychotherapeutic treatment program could be negatively influenced.

These offenders differ from exclusive S and V offenders, especially when

their distribution of antisocial and borderline PDs is taken into account. Because an antisocial orientation is a major predictor of sexual and violent recidivism (Hanson & Morton-Bourgon, 2005) and because an individualized treatment design is especially needed for offenders with psychopathic traits (Hodgins, 2007), our study suggests that the evaluation and subsequent treatment of combined S+V offenders deserves special attention due to the high comorbidity of antisocial and borderline PDs. If feasible, psychotherapeutic treatment of these male offenders should not incorporate cognitive techniques exclusively to identify positive and possible negative consequences of behavior (e.g., cognitive-behavioral therapy, CBT) because the borderline aspect of the personality structure might best be addressed by special problem-solving skills training in connection with dialectical behavior therapy. This approach has already been shown to be promising for female prisoners with borderline PD (Nee & Farman, 2005). Furthermore, sexual offenders with psychopathy, possibly resembling the S+V group of this study, were shown to have a higher dropout rate in CBT-based treatment and the highest rates of criminal recidivism (Olver & Wong, 2009). Our findings demonstrate a need to consider a more complex view of the assessment and possible treatment of offenders who have committed both sexual and (nonsexual) violent offenses.

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