

The Relationship Between Criminal Charges, Diagnoses, and Psycholegal Opinions Among Federal Pretrial Defendants

Robert E. Cochrane, Psy.D.,*
Thomas Grisso, Ph.D., and
Richard I. Frederick, Ph.D.

This study analyzed data from 1710 criminal defendants referred by federal courts throughout the United States. We examined 12 categories of criminal charges with respect to diagnosed psychopathology and opinions related to competence to stand trial (CST) and criminal responsibility (CR) at the time of the alleged offense. Overall, 18% of the present sample were found to be incompetent to stand trial, while 12% were found to be not criminally responsible or 'insane.' In this study, crimes were associated with rates of psychopathology and rates of opinions regarding CST and CR. The findings of this study suggest that individuals who are charged with different crimes have different mental states and psychopathology and are therefore found to have differential rates of competence and sanity. Copyright © 2001 John Wiley & Sons, Ltd.

INTRODUCTION

Clinicians who perform forensic evaluations for competence to stand trial (CST) and criminal responsibility (CR) must make diagnostic judgments and form various opinions that may influence the adjudication of criminal defendants. Research on recommendations by forensic evaluators regarding CST and CR has received moderate attention, with a great deal of variability noted in the literature. For example, rates of incompetence to stand trial among evaluators have ranged from 4% to 77% (Bendt, Balcanoff, & Tragellis, 1973; Bittman & Convit, 1993; Gold, 1973; Nicholson & Johnson, 1991; Roesch and Golding, 1980; Rosenfeld & Ritchie,

*Correspondence to: Robert E. Cochrane, Psy.D., Federal Medical Center, P.O. Box 1500, Butner, NC 27509-1500, USA. Tel. 919-575-3900 ext. 5466; fax, 919-575-4841. E-mail: rcochrane@bop.gov
Opinions expressed in this paper are those of the authors and do not necessarily represent opinions of the University of Massachusetts or the Federal Bureau of Prisons or the Department of Justice.

1998; Steadman, Monahan, Hartstone, Davis, & Robbins, 1982; Warren, Fitch, Dietz, & Rosenfeld, 1991; Warren, Rosenfeld, Fitch, & Hawk, 1997). The large discrepancy may be explained by small sample sizes in some studies, overrepresentation of certain crimes, and setting differences (e.g. inpatient versus outpatient). However, the differences cannot be explained as a consequence of different standards for competence, as these studies have all consistently used, or been modeled after, the standard provided in the landmark *Dusky v. U.S.* (1960) case. While there was great variability in competency rates within the 29 studies reviewed by Nicholson and Kugler (1991), their metaanalytic review resulted in a mean incompetency opinion rate of 30%. This is fairly consistent with Roesch and Golding (1980), who found the average incompetence rate to be around 25%.

While only a few studies have examined sanity opinions, there appears to be more consistency in rates of insanity by evaluators, with the average being approximately 10% (Packer, 1987; Warren *et al.*, 1997). In an assessment of homicide defendants referred for criminal responsibility, Packer (1987) found that 9.4% of male defendants were *adjudicated* NGRI. Warren and colleagues (1997) found differences among evaluators in three different state forensic systems regarding sanity decisions. They examined defendants charged with various offenses and found that Ohio evaluators rated defendants referred for CR insane in 13% of the cases, as compared to 9% of the cases among Virginia evaluators, and 7% in Michigan.

Diagnoses among Forensic Referrals

Research on the diagnoses of defendants referred for CST evaluations has also been limited. Of 390 males referred for CST evaluations at a court clinic, Reich and Wells (1985) found that 28.8% were given a primary diagnosis of schizophrenia, 13.3% were diagnosed with another psychotic disorder, 14.6% with substance abuse/dependence, 6.4% with a mood disorder (4.4% bipolar), 5.9% with mental retardation (MR), 5.2% with an organic disorder, 3.1% with adjustment disorder, and 2.3% with a personality disorder. After reanalyzing the data of Warren and her colleagues (1997) in order to examine diagnoses among those referred for CST evaluations, somewhat different results were found. These authors found that 18.5% received the diagnosis of schizophrenia, 5% were diagnosed with a paranoid or psychotic disorder, 11.8% with mental retardation, 10.6% with an affective disorder, 11.4% with an organic disorder, 10.8% with a personality disorder, and 30.8% with other disorders (not specified). It appears that schizophrenia and other psychotic disorders represent the largest diagnostic category among those referred for CST, followed by substance abusers and those with affective disorders. Mental retardation, organic disorders, and personality disorders are primary diagnoses to a much smaller degree.

Interestingly, none of these studies included a diagnostic category of malingering. The literature has been particularly sparse in addressing the issue of malingering in pretrial samples. One study by Cornell and Hawk (1989) found that malingering was diagnosed in 8% of 314 pretrial evaluations. Rogers, Sewell, and Goldstein (1994) polled 320 experienced forensic evaluators and found that these professionals estimated they diagnosed malingering in approximately 15% of their

cases. Further base rate data is needed to determine the frequency with which clinicians evaluating pretrial defendants make a malingering diagnosis.

Diagnoses and Incompetence

The general finding that diagnosis is related to the determination of competency (see e.g. Nicholson & Kugler, 1991; Rogers, Gillis, McMMain, & Dickens, 1988; Warren *et al.*, 1991) is not surprising, since one would expect those found incompetent to have more serious psychopathology. Diagnoses of mental retardation and psychotic, organic, and major affective disorders would be more common among those found not competent than primary diagnoses of substance abuse, personality disorders, or paraphilias, to mention a few. In fact, among persons referred for CST evaluations, individuals with schizophrenia and other psychotic illnesses have the highest rates of incompetence, with rates ranging between 45% and 65% (see e.g. Nicholson & Kugler, 1991; Reich & Wells, 1985; Roesch, Eaves, Sollner, Normandin, & Glackman, 1981; Warren *et al.*, 1991). Those individuals referred with affective disorders also have relatively high rates of incompetence, ranging between 23% and 37% (Hoge, Bonnie, Poythress, Monahan, Eisenberg, & Feucht-Haviar, 1997; Rogers *et al.*, 1988; Warren *et al.*, 1991). Among persons with mental retardation who were referred for CST evaluations, Miller and Germaine (1988) found 15% of those with MR to be incompetent, Warren and colleagues (1991) reported 36%, while Reich and Wells (1985) found 12.5% incompetent. In two studies that contained a diagnostic category of organic disorder (Reich & Wells, 1985; Warren *et al.*, 1991), 17.6% and 21% were found to be incompetent, respectively.

Diagnoses and Insanity

Comparing sane and insane homicide defendants within an inpatient forensic unit in Michigan, Packer (1987) found the modal diagnosis for those determined to be insane was schizophrenia (44%). Examining 202 New York defendants from 1970 to 1980 who actually put forth a not guilty by reason of insanity (NGRI) plea, Steadman, Keitner, Braff, and Arvanites (1983) found that 18 of 22 (82%) individuals diagnosed with a psychotic disorder were determined to be insane. Warren *et al.* (1991) also examined rates of insanity for several diagnostic categories (as opposed to examining rates of each diagnosis for those in the 'insane' group). They found that those with schizophrenia or another psychotic disorder were determined to be insane by evaluators 48% of the time. Lesser rates of insanity were found among those with organic disorders (18%), affective disorders (15%), and MR (13%). Therefore, it appears that receiving a diagnosis of schizophrenia significantly increases one's chances of not being found criminally responsible.

Criminal Charges and CST/CR

A few studies have examined the relationship between criminal charges and incompetence and insanity opinions. In an analysis of forensic systems across three

states (Virginia, Ohio, Michigan), Warren *et al.* (1997) found that individuals charged with homicide or sex offenses were twice as likely as other defendants (those charged with crimes against persons, property, public order, and 'other' offenses) to be found competent. Those charged with public order offenses were 2.7 times more likely to be incompetent as other categories of offenders. Drug offenses and robbery have also been shown to have somewhat lower than average rates of incompetence (13% and 9%, respectively), with the mean being 17% across 773 evaluations (Warren *et al.*, 1991). Regarding CR, persons charged with crimes against others (e.g., assault) were more than twice as likely as other defendants to be found insane by evaluators, while sex offenders were five times more likely to be found sane (Warren *et al.*, 1997). Among 617 CR evaluations in Warren's 1991 study, property crimes and public order offenses each had insanity rates near the mean of 8%. It should be noted that none of these studies controlled for diagnostic differences, making it difficult to determine whether diagnoses, and not criminal charges, explain the competence and sanity findings.

Two other studies suggested that differences in opinions about competence might be related to the seriousness of the crimes. Rosenfeld and Ritchie (1998) analyzed offense severity in terms of misdemeanor versus felony (including several levels), violent versus non-violent, and median length of possible sentence. Offense severity was positively correlated with determinations of competency within each severity category, with those charged with less serious offenses having higher rates of incompetence. Similarly, Bittman and Convit (1993), reviewing 354 cases referred for CST evaluation in New York, found that incompetent defendants were more often charged with misdemeanors than with felonies and non-violent offenses rather than violent crimes.

Others have argued there is no relationship between criminal offense and CST and CR opinions. Comparing just two categories of offenses, Steadman and his colleagues (1983) found that murderers and property offenders had about the same rates of insanity (27% and 21%, respectively). Unfortunately, while these researchers indicated 202 defendants were evaluated to determine their criminal responsibility, they did not report the size of the samples for these two crime categories. Howard and Clark (1985) found no differences based on type of offense among pretrial sanity defendants, but they also did not report how offenses were categorized and their sample was relatively small ($N=80$). In a Canadian sample, no relationship was found between multiple charges and 'fitness' evaluations (comparable to CST), although the authors did not report what the charges were or how these data were analyzed (Rogers *et al.*, 1988). Comparing violent versus non-violent offenders, Nicholson and Johnson (1991) reported no significant correlation between offense and rates of incompetence for 261 defendants. Similarly, Johnson, Nicholson, and Service (1990) discovered no relationship between offense and incompetence when offense severity was classified along a 19 point rating scale. Finally, the review by Nicholson and Kugler (1991) of 12 studies found no significant correlations between type of offense (violent versus non-violent) and competency status. The majority of studies have not found differences in CST opinions based on crime severity. However, some recent literature using solid research designs (e.g. Rosenfeld & Ritchie, 1998) have reported differences, with incompetence associated with less serious offenses.

When differences in rates of incompetence or insanity based on charges have been found, some have argued the differences were the result of evaluator bias. For example, Rosenfeld and Ritchie (1998) suggested that individuals charged with more serious crimes are more likely to be found competent to stand trial because clinicians require a higher threshold of incompetence for those facing serious charges. These authors indicate this bias is not necessarily inappropriate, but based on the American Bar Association's Criminal Justice Mental Health Standards, which states that competency evaluators 'should consider a defendant's mental ability in relation to the severity of the charge and the complexity of the case.' However, one would expect that those facing serious charges would be *more* likely to have to make complex legal decisions and go to trial, and would therefore be found incompetent more often. These authors also indicate that minor offenders may be found incompetent more frequently as a result of the legal system being used to obtain mental health services for the mentally ill and indigent. This would be consistent with the previously mentioned findings that less serious offenders are more often found to be incompetent.

Another explanation for differences in incompetence and insanity rates is that judges and attorneys may have different referral patterns for those charged with more or less serious offenses. Unfortunately, surveys of referral patterns have been lacking and little is known about these judicial determinations. One study by Berman and Osborne (1987) examining attorneys' referrals for 60 CST cases found that of those referred for competency evaluations, 68% were charged with violence against person crimes, 15% had non-violence charges, and 13% were charged with violence against property. Although the sample was small, these data suggest attorneys may have a lower threshold for referring more seriously charged offenders for a CST evaluation. This may be due to greater psychopathology among these defendants or because of different legal strategies for cases involving serious criminal charges. In another study by Hoge, Bonnie, Poythress, and Monahan (1992), public defenders were interviewed and found to have more doubts about a defendant's competence when the client was charged with a more serious felony versus a less serious felony ($X=25.7$, $df=2$, $p < 0.0001$).

Interestingly, in South Carolina virtually all defendants charged with murder are referred for a competency evaluation regardless of their mental state or any question of their competence (G R McKee, personal communication, February 15, 2000). Whether other states have similar practices in cases of homicide or other offenses is unknown. However, referral procedures of this type would certainly affect diagnostic, CST, and CR opinion rates by evaluators. Much lower rates of mental illness, incompetence, and insanity among homicide defendants would be expected since many defendants would be referred even when there was never any question of mental illness or impaired cognitive ability.

Another hypothesis is that the mentally ill commit more violent offenses than non-mentally ill offenders, which could lead to different diagnostic opinions based on the type of criminal charge. However, recent research suggests that persons with mental illness are no more likely to engage in violence unless other factors are present as well, such as acute psychotic symptomatology or substance use (see e.g. Borum, Swartz, & Swanson, 1996; Steadman, Mulvey, Monahan,

Clark-Robbins, Appelbaum, Grisso, Roth, & Silver, 1998). Also, if the mentally ill engage in more violence and are actually criminally charged and not diverted to other systems (e.g., civil commitment), one would expect that mental illness would be reported by evaluators at *higher* rates for those charged with violent or more serious offenses, which is not consistent with the research findings described earlier.

Criminal Charges and Diagnoses

As previously mentioned, the relationship between criminal offense and CST and CR opinions may be mediated by a defendant's diagnosis. In other words, there may be relationships between charges and diagnoses and between diagnoses and CST/CR opinions. There is some value in knowing the independent relationships between these variables. For example, if individuals charged with sex crimes have much higher rates of mental retardation, this might provide useful information to law enforcement officers who investigate crimes, correctional personnel who screen inmates and make disposition determinations, and mental health professionals who evaluate and treat sex offenders. However, while each of these relationships are important to understand, there may not be a strong link between charges and opinions once a defendant's diagnosis is taken into account. This study will try to address whether a relationship exists between charges and opinions once diagnoses are controlled for statistically, something that has not been undertaken thus far in the literature.

Current Study's Objectives

This study examined the relationships between criminal charges, diagnoses, and CST and CR opinions not in terms of possible evaluator or referral "bias," but with the underlying hypothesis that individuals who commit different crimes have different mental states and psychopathology, and are therefore found to have differential rates of competence and sanity. The majority of published studies to date have examined criminal charges strictly in terms of offense severity (e.g. violent versus non-violent, misdemeanor versus felony), and have not discriminated between offenses that are categorically distinct. Moreover, most studies have not looked at charges and diagnoses simultaneously in relation to CST and CR findings, thus making it difficult to interpret the relation between CST and CR and either of these other characteristics. This may explain the mixed results found between offense severity, diagnoses, and psycholegal decisions. Individuals who commit certain types of crime may have very different psychological characteristics (including mental illnesses) from those who commit other crimes that are similar in regard to their severity. For example, sexual assault and murder are both violent and serious offenses, but individuals who commit sex crimes may be quite different from those who commit murder. By placing crimes into numerous categories, this study will be able to better describe the relationship between criminal offense and mental illness, and the affect these variables have on ultimate psycholegal findings.

While descriptive data will hopefully provide useful information for the forensic evaluator, the specific hypotheses for this study include the following:

- (i) There will be a significant relationship between diagnoses and charges, suggesting that those who are charged with different crimes have different forms of psychopathology.
- (ii) There will be a significant relationship between diagnoses and incompetence and insanity findings. Any relationship that exists between criminal charges and incompetence and insanity findings will be mediated by diagnoses.

Federal Crimes

We are not aware of any studies that have used samples of federal defendants when examining criminal charges, diagnoses, and psycholegal opinions. While there is no reason to believe those who commit state crimes are different than those who commit federal crimes in any significant way, such differences might exist. Crimes that lead to federal prosecution tend to include many drug related offenses, crimes against federally insured institutions (e.g., most banks), and crimes on federal property, Indian reservations, and military installations. While offense categories used in this study overlap a great deal with many state crimes (e.g. assault, robbery, murder), the differences lie mainly in where the offense occurred and who was the target of the crime. For example, if someone robbed a liquor store they would likely be charged in state court. However, if a person robbed a bank, federal prosecutors would usually take the case. We believe that assignment of prosecution is not a function of the individual defendant, but rather a function of the law. There is no strong reason to believe those charged with similar crimes in the federal system are fundamentally distinct from state offenders.

Additionally, some crime categories used in this study have not been widely examined in the literature because they are not state crimes, such as illegal immigration and threats against government officials. This allows us to look at patterns of mental illness and psycholegal determinations among individuals who are charged with these 'unique' offenses.

METHOD

Subjects

Subjects included 1710 male, pretrial defendants referred from federal district courts throughout the United States for court-ordered evaluations. The medical center where evaluations were completed was one of several inpatient facilities throughout the U.S. serving federal courts. The referrals included 1436 evaluations for CST, 719 evaluations for CR, 214 evaluations for dangerousness/need for hospitalization, and 17 for diminished capacity referred from 1991 to 1998. Many defendants were referred for more than one type of evaluation. For example, 638 subjects (37%) had both a CST and CR evaluation completed. Subjects were 926 Caucasian (54%), 465 African-American (27%), 191 Hispanic (11%), 61 Native

American (4%), 28 men of other races (1%), and 39 subjects unidentified (2%). The average age of subjects was 37.9 (SD = 11.1). All subjects were charged with federal crimes.

Definition of Variables

Evaluators

Individual evaluators determined diagnosis, CST, and CR. The evaluators included 12 licensed psychologists and nine licensed psychiatrists. Five evaluators (23.8%) who are currently board certified in forensic psychology (ABFP) or forensic psychiatry completed 1394 of the evaluations (81.5%).

Competence to Stand Trial

Federal law (18 U.S.C., section 4241) defines competence to stand trial as whether the defendant "is presently suffering from a mental disease or defect rendering him mentally incompetent to the extent that he is unable to understand the nature and consequences of the proceedings against him or to assist properly in his defense." This definition was construed after the 1960 *Dusky v. U.S.* case and is followed by most states. We therefore have no reason to believe evaluators' opinions in this study would be any different from those in other jurisdictions based on the criteria for incompetence.

Criminal Responsibility

The Insanity Defense Reform Act of 1984 led to the passage of 18 U.S.C., section 17, which defines insanity (criminal responsibility) as "... at the time of the commission of the acts constituting the offense, the defendant, as a result of a severe mental disease or defect, was unable to appreciate the nature and quality or the wrongfulness of his acts." This definition is considered to simply be a "cognitive" test of insanity and does not contain the "volitional" prong (i.e. irresistible impulse) many states have in their statutes. Given this, there may be some reason to believe evaluators in different jurisdictions may reach different opinions regarding CR. However, Warren *et al.* (1991) examined the basis for which evaluators drew conclusions about a defendant's sanity when the definition of CR included both the cognitive and volitional components. They found that while 8% of CR referrals (47 of 617) were opined to be insane, only 23% ($N = 11$) of this insane group had impairment limited to the volitional prong. The remaining defendants (77%) were found insane based on impairment on at least two of the three cognitive prongs (understanding nature and consequence of the act, distinguishing right from wrong, and irresistible impulse). Overall, Warren *et al.* (1991) found less than two percent of referrals to be insane based solely on the volitional part of the test. In terms of jury decision making, Finkel (1989) found that mock jurors did not produce significantly different verdicts when four different insanity test instructions were provided (Insanity Defense Reform Act, the American Law Institute, a wild

beast/*mens rea* test, or no instruction). These data suggest that regardless of how insanity is defined, evaluators and jurors come to the same conclusions.

Federal Offenses

For purposes of this study, a defendant's *primary* criminal charge was used in the analyses, while additional lesser charges against a defendant were ignored. Given the enormous number of federal crimes, including minor variations of similar offenses, criminal charges were broken down into 12 offense categories: robbery (20%), drug related offenses (19%), threats against government officials (12%), illegal possession of weapons (11%), "nuisance" crimes (e.g., property damage, violation of probation) (10%), assaults (7%), "white-collar" crimes (7%), illegal immigration (4%), murder (3%), sex offenses (3%), theft/breaking and entering (2%), and kidnapping/hostage taking (2%).

Diagnoses

Diagnostic data were collected from the court-ordered reports. Evaluators made diagnoses using the DSM-III-R (American Psychiatric Association, 1987) and DSM-IV (American Psychiatric Association, 1994). All diagnoses were included in the analyses, even if defendants had multiple diagnoses. General categories were frequently used in the analyses (e.g. affective disorders, psychotic disorders, etc) as well as specific diagnoses when appropriate (e.g. bipolar disorder, schizoaffective disorder, etc).

Procedure

All data were archival and collected from the reports of 1710 consecutive cases. The evaluations were performed from 1991 to 1998 and the data were gathered on an ongoing basis. The DSM-III-R was used as the basis for diagnoses until 1994, when the DSM-IV was then introduced. Definitions of CST and CR remained the same throughout these years.

Analyses

Comparisons between charges, diagnoses, and incompetence and insanity opinions were made in several stages. The 12 offense categories were cross-tabulated with eight diagnostic categories and presented in descriptive form (sample sizes and percentages). Data were similarly analyzed for offense and incompetence opinion, offense–insanity, diagnoses–incompetence, and diagnoses–insanity. Lastly, logistic regression was used to determine whether relationships between offense and incompetence/insanity opinions are mediated by diagnosis. We hypothesized that subjects who commit different crimes have different mental states and psychopathology, and it is the psychological makeup (including diagnoses) of subjects, and not necessarily the crimes themselves, that explains the differential rates of competence and sanity.

RESULTS

Table 1 offers a summary of DSM diagnoses for the entire sample. Over 40% of subjects had a substance abuse/dependence disorder as well as a personality disorder (PD). Of those with a PD, 57% had an antisocial PD while only 4% had a borderline PD. In fact, nearly one quarter (24%) of all subjects received an antisocial PD diagnosis. With respect to psychotic disorders, 32% of subjects received one of the psychotic disorders, with 76% of these subjects having schizophrenia. Bipolar disorder and major depression made up the majority of mood

1. Diagnoses for entire sample

Diagnoses	% (N)
<i>Psychotic disorder</i>	32 (529)
Schizophrenia	24 (401)
Delusional	3 (42)
Psychotic NOS	2 (41)
Schizoaffective	2 (29)
Brief psychotic	1 (15)
Dissociative	< 1 (1)
<i>Mood disorder</i>	19 (327)
Bipolar	5 (89)
Major depression	4 (77)
Adjustment	4 (74)
Dysthymia	2 (33)
PTSD	2 (30)
Depressive NOS	1 (9)
Anxiety NOS	< 1 (7)
Cyclothymic	< 1 (4)
OCD	< 1 (4)
<i>Organic disorder</i>	8 (129)
<i>Intellectual</i>	9 (159)
Mental retardation	2 (37)
Borderline intellect	7 (122)
<i>Substance abuse/dependence</i>	47 (798)
<i>Personality disorder</i>	41 (703)
Antisocial	24 (406)
Mixed w/APD	6 (112)
PD NOS	4 (75)
Other	3 (52)
Borderline	2 (31)
Narcissistic	2 (27)
<i>Malingering</i>	11 (186)
<i>Other</i>	2 (38)
Paraphilia	1 (19)
Somatoform	< 1 (6)
Impulse control	< 1 (4)
Gambling	< 1 (3)
Conversion	< 1 (2)
Psych. affecting med.	< 1 (2)
Psychogenic amnesia	< 1 (1)
Pyromania	< 1 (1)

Note. Diagnostic categories and diagnoses represent percentages of entire sample.

Table 2. Percent incompetent and insane within diagnoses

Diagnosis	Incompetent % (N)	Insane % (N)
Psychotic	43 (465)	40 (185)
Mood	13 (271)	10 (151)
MR	30 (33)	20 (20)
Organic	38 (116)	7 (44)
Personality	11 (601)	6 (352)
Substance	12 (688)	10 (390)
Other	7 (29)	0 (21)
Malingering	2 (168)	1 (81)
<i>Total</i>	<i>19 (1436)</i>	<i>13 (719)</i>

Note. Sample sizes (N) within each diagnosis represent total number of subjects evaluated for incompetence and insanity. N value and percentages do not equal total of columns since some subjects had multiple diagnoses.

disorders (27% and 23%, respectively), with 19% of all subjects receiving a mood disorder diagnosis. Organic disorders and mental retardation (MR) occurred much less frequently (8% and 2%), as did post-traumatic stress disorder (PTSD, 2%) and dissociative disorders ($N=1$). A formal malingering diagnosis was given to 11% of subjects. They were reported to be feigning psychosis, cognitive impairment, memory impairment, multiple personality disorder, or combinations of these conditions.

Table 2 outlines the relationship between the above-mentioned diagnostic categories and findings of incompetence to stand trial and insanity. As would be expected, defendants with psychosis have the greatest likelihood of a finding of incompetence (43%) and insanity (40%). Subjects receiving organic and MR diagnoses were incompetent at high rates as well (38% and 30%, respectively), with the other disorders having much lower rates of incompetence. Interestingly, while many with organic disorders were found incompetent (38%), very few (7%) were found to be insane. Large differences between incompetence and insanity rates were not found for the other disorders.

Rates of incompetence and insanity within each of the crime categories are listed in Table 3. Regarding incompetence rates, there is considerable variability based on the type of criminal charge, with the highest percentages of incompetence occurring for illegal immigration (31%), threats (28%), murder (26%), and assault (25%). Even though this study did not classify charges based on severity of offense, these results show that some of the charges most would consider serious and violent (i.e. murder and assault) had high incompetence rates, while other serious crimes (i.e. kidnapping and robbery) had relatively low incompetence rates. Nuisance, theft, and white-collar crimes (all non-violent) had incompetence rates near the mean of 19%.

Insanity rates show even greater variability based on the type of offense. Those charged with threats and assault had considerably higher rates of insanity (36% and 31%, respectively) than the other groups. Murder (15%), weapons (12%), and theft (18%) crimes were close to the 13% average insanity rate. Surprisingly low insanity rates were found for several crime categories. In fact, none of the subjects charged with sex crimes, illegal immigration, or kidnapping were opined to be insane. Low

Table 3. Percent incompetent and insane within charges

Charges	Incompetent % (N)	Insane % (N)
Assault	25 (102)	31 (60)
Robbery	14 (286)	4 (155)
White-collar	19 (100)	4 (45)
Threats	28 (167)	36 (84)
Drug	11 (274)	2 (121)
Sex	20 (45)	0 (22)
Weapons	17 (143)	12 (84)
Illegal immigration	31 (71)	0 (15)
Murder	26 (46)	15 (20)
Theft/B&E	23 (30)	18 (22)
Kidnap/hostage	0 (27)	0 (21)
Nuisance	22 (133)	21 (61)
<i>Total</i>	<i>19 (1424*)</i>	<i>13 (710*)</i>

Note. Sample sizes (N) within each charge represent total number of subjects evaluated for incompetence and insanity.

*Incompetence missing 12 cases; insanity missing nine cases.

rates were also found for those charged with drug offenses (2%), robbery (4%), and white-collar crimes (4%). And, as with incompetence findings, upon a cursory review, the seriousness of the crime does not appear to correspond to higher or lower rates of insanity.

The relationship between criminal charges and diagnoses has not been addressed in the literature. As seen in Table 4, the high incompetence rates for those charged with threats and illegal immigration (see Table 3) are likely related to the fact that those facing these charges were diagnosed with psychotic disorders much more frequently (52% and 59%, respectively) than those facing other charges. Low

Table 4. Percentage of diagnoses within charges

Charges	Mood	MR	Organic	Psychotic	Personality	Substance	Other	Malingering
Assault (N = 114)	12	3	9	42	45	50	0	6
Robbery (N = 327)	22	2	8	32	51	52	2	17
White-collar (N = 117)	28	2	7	16	40	31	3	10
Threats (N = 201)	18	0	2	52	45	39	1	8
Drug (N = 310)	20	4	11	16	30	59	1	14
Sex (N = 55)	5	11	13	16	42	42	25	9
Weapons (N = 176)	20	2	8	28	56	52	1	8
Illegal immigration (N = 73)	8	1	8	59	36	36	0	11
Murder (N = 57)	20	2	7	41	30	52	0	4
Theft/B&E (N = 32)	22	3	9	28	28	44	3	9
Kidnap/hostage (N = 31)	19	0	3	19	74	39	3	23
Nuisance (N = 161)	25	0	6	38	33	48	4	6
<i>Total (mean %)</i>	<i>20</i>	<i>2</i>	<i>8</i>	<i>32</i>	<i>42</i>	<i>48</i>	<i>2</i>	<i>11</i>

Note. Figures in percentages. Row totals do not equal 100% since some subjects had multiple diagnoses.

psychotic rates (compared to the mean) can be found among those charged with sex (16%) and white-collar (16%) and drug (16%) crimes, as well as kidnapping/hostage taking (19%).

Mental retardation was particularly high among those charged with sex crimes (11% compared to the mean of 2%). Interestingly, when this category is broken into sub-categories of “contact” offenders (such as rape; $N=37$) and “non-contact” offenders (such as internet child pornography; $N=18$), the differences are even more striking, even though the sample sizes are admittedly low. Of those offenders who had physical contact with their victim (“contact” offenders) 16% were diagnosed with MR, while none of the “non-contact” offenders received an MR diagnosis. Organic disorders were also relatively high among the “contact” group (19%), while none of the “non-contact” offenders received an organic diagnosis.

Unexpectedly, those charged with murder had fairly low rates of malingering (4%), despite the high stakes facing these defendants. On the opposite end were those charged with kidnapping and robbery, where rates of malingering were 23% and 17%, respectively. Furthermore, the kidnapping group appeared to be somewhat distinct from other defendants. These defendants were much more characterological (74% PD) and had lower rates of mental disorders in general.

In order to determine whether a relationship existed between criminal charges and opinions of incompetence and insanity once diagnoses were controlled for, a logistic regression was performed. Logistic regression is a statistical model that allows one to predict a discrete outcome from a set of variables that may be continuous, discrete, dichotomous, or any mix of these. The goal of logistic regression is to correctly predict the category of outcome for individual cases using the most parsimonious model. Logistic regression also provides knowledge of the relationships and strengths among the variables. The reason it was used with these data was to address the assertion made in prior studies that evaluators may unwittingly be biased toward certain opinions based on a defendant’s charge. If relationships existed between charges and the incompetence/insanity opinions when diagnoses were considered, further analysis would be needed to determine the explanations for these results. However, when the logistic regression was applied there were no statistically significant relationships ($p < 0.05$) between any of the charges and incompetence or insanity findings when diagnostic opinions were simultaneously considered. Furthermore, as shown in the descriptive data, the diagnoses most closely associated with incompetence and insanity opinions were psychotic disorders, followed by affective disorders, mental retardation, and personality disorders (negatively correlated).

DISCUSSION

Diagnostic Patterns and Psycholegal Opinions

Much like previous studies examining incompetence and insanity rates among individuals with varying diagnoses (e.g. Nicholson & Kugler, 1991; Reich & Wells, 1985; Warren *et al.*, 1991), we found that defendants with psychotic disorders had the highest rates of incompetence and insanity. This is not surprising since those with thought disorders typically have more difficulty understanding various

concepts, working with others, and appreciating their conduct. Individuals with cognitive deficits as a result of organic impairment may also lack these abilities. However, the data in this study seem to suggest the deficits among those with organic disorders are mostly confined to competency abilities and do not affect those abilities associated with insanity. While almost 40% of those with an organic diagnosis who were evaluated for both CST and CR were found to be incompetent, only 7% of these individuals were opined insane by evaluators, a discrepancy not found among those with other disorders. It may be that the deficits typically found among those with organic impairments are simply more relevant for abilities related to competency than for appreciation or wrongfulness.

Criminal Charges and Evaluators' Opinions: Comparing Hypotheses

Studies examining incompetence rates among mentally retarded defendants illustrate the relevance of the relationship between charges, diagnoses, and opinions. As previously discussed, incompetence rates among those with MR range anywhere from 12% to 36% (see e.g. Miller & Germaine, 1988; Reich & Wells, 1985), with our study resulting in 30%. One reason for the large differences may be because those with MR are more likely to commit certain types of offense. Of those MR defendants in the present study who were charged with federal crimes, a large percentage of them were alleged to have committed sex offenses, particularly sex crimes involving physical contact with the victim. This seems to suggest that individuals charged with different crimes have different patterns of psychopathology, which affects their competence to stand trial and sanity.

Results from this study are also consistent with other research that has found differences in incompetence and insanity rates based on defendants' criminal charges. However, while several studies have found those who commit less serious offenses are more often opined to be incompetent, these results suggest that crime severity does not sufficiently explain the relationship between crimes and evaluator opinions. Our findings provided several examples of offenses that could be considered equally serious (such as assault and kidnapping) where diagnoses and incompetence and insanity rates differed greatly based on the crime. When offenses are defined and examined solely in terms of severity, differences found are potentially misleading. Many offenders of "serious" crimes may have just as high, and in some cases higher, rates of mental illness, incompetence and insanity as do less serious offenders. These data also support the hypothesis that individuals charged with certain types of offense have different mental states (including mental illnesses) than other offenders, and therefore have different incompetence and insanity rates. However, this does not preclude the fact that both hypotheses may be true; there are differences based on types of crime and based on crime severity.

Rosenfeld & Ritchie (1998) argued that evaluators may have different thresholds for incompetence and insanity based on a defendant's criminal charge. This evaluator "bias" hypothesis is not consistent with results from this study, since as previously mentioned crime severity did not appear to relate to incompetence or insanity rates. The logistic regression conducted in this study also did not support the notion that the criminal charges may have influenced evaluators' opinions, since

no relationship existed between charges and incompetence or insanity opinions once diagnoses were taken into account. This analysis, however, does not rule out the possibility that evaluators may have been biased toward giving certain *diagnoses* based on the crimes, which could have affected the incompetence or insanity opinions. However, we can see no reason why there would be a propensity for evaluators to misdiagnose in any consistent way based on the crimes of defendants.

Referral “bias,” or different rates of referral by the courts based on the crime, is another factor that may explain why incompetence and insanity rates differ based on criminal charges. Based on the few studies that have looked at referral patterns (e.g. Berman & Osborne, 1987; Hoge *et al.*, 1992), one would expect those charged with more serious crimes to be referred more frequently for an evaluation. If this were the case, one would also expect lower rates of mental illness, incompetence, and insanity among serious offenders in general, presumably due to a high number of these referrals even when there was little concern about the mental condition of these defendants. However, lower rates were not found in this study. For example, the murder and assault categories had *above* average rates of psychotic disorders, as well as incompetence and insanity rates above the means. This suggests the referral hypothesis may not have much explanatory power for why differences exist based on the offense.

Given the differences between forensic systems of state and federal courts, we cannot eliminate the possibility of other types of referral bias influencing rates of mental illness and/or psycholegal opinions. There are far fewer inpatient facilities where forensic evaluations are performed for federal courts. Referral patterns through the federal system may in some ways be different and therefore affect the results of this study in ways unknown to these authors. Additionally, demographic differences such as age and education were not taken into account in this study, leaving open the possibility that differences found could be a function of these factors.

The Relationship between Charges and Diagnoses

We have argued that defendants who are charged with different crimes tend to be distinct in terms of mental conditions. Findings from a few crime categories unique to the federal system are worth discussing at this point. First, defendants charged with threats against government officials had very high rates of psychosis (52%), while very few had organic impairment (2%) and none were diagnosed with mental retardation. Individuals who make these threats usually become fixated on, and direct their hostility toward, political or judicial figures they perceive as either a threat toward themselves or others, or whom they believe are deserving of punishment. They often convey their threats through letters, telephone calls, electronic mail, and occasionally through direct personal contact. It is perhaps not surprising that threateners would have few if any cognitive or intellectual deficits, since the crime itself usually entails persistent or serious threats (i.e. including a specific plan) with some degree of planning or forethought. This would seem less likely to occur from someone with serious intellectual or cognitive deficits. The high percentage of psychosis among threateners, however, appears more directly related to the crime.

For example, one reason individuals in this category may threaten is because of delusional thinking. Delusional threateners may act based on feelings of persecution, ideas of reference, or simply due to false beliefs about conduct of the victim. Those who threaten also do not typically have the same criminal motives found among other offenders, making their crimes appear senseless or “crazy.” Another possible explanation is that those who threaten government officials are treated very seriously, so that there may be a disproportionate number of referrals of psychotic persons who, had they threatened a non-governmental official, would never have been charged with an offense.

Those charged with illegal immigration also have very high rates of psychosis (59%) compared to the mean (32%). This group of defendants consists almost entirely of Mexican citizens apprehended in the southwest portion of the United States. It is not certain why these defendants would be diagnosed with psychotic disorders more often than other defendants. There is no reason to believe Mexicans have higher rates of psychosis than those of other races or nationalities. There is also no reason to think the seriously mentally ill commit this crime, or are charged with this crime, more frequently than other offenses. It is possible that evaluators may inadvertently misdiagnose these defendants because of cultural or language differences. However, interpreters are commonly used when defendants do not speak English, and several medical center staff members are bilingual and familiar with Mexican culture.

One possible explanation for the high psychotic disorder rates has to do with the large numbers of illegal immigrants detained by border patrol and processed through the courts. Given the enormous number of these cases, there may be some inadvertent pressure to process these cases quickly. This, coupled with unavoidable delays involved in referring someone for a forensic evaluation, may translate to only a small percentage of these persons being referred for evaluation. In other words, unlike other criminal defendants, an illegal immigrant may have to surpass a *higher* threshold to warrant a mental health examination. This would inflate the percentage of these defendants who are found to be mentally ill.

Drug offenses, white-collar crimes, and kidnapping are federal crimes that appear to require cognitive abilities beyond those of other offenses. These abilities include among other things, sufficient planning and organization. Individuals with serious mental illness would be less likely to be involved in these crimes because of the nature of these offenses. In fact, those charged with drug, white-collar, and kidnapping crimes had very low rates of mental illness, particularly psychosis (16%, 16%, and 19%, respectively). These results are consistent with prior research (e.g. Cornell & Hawk, 1989; Warren *et al.*, 1991, 1997), especially for the sex offending group, which has consistently been shown to have low rates of mental illness, incompetence, and insanity.

One unexpected finding was the low rate of malingering among defendants charged with murder (4% compared to the 11% average). This was surprising given the high stakes involved in murder cases, which presumably puts more pressure on defendants to exaggerate symptoms or malingering. However, upon examination of this group of murder defendants, we discovered that almost 25% of them were Native American, a figure well above national and prison population averages. The reason for such a high figure is because nearly all murders occurring on Indian reservations are prosecuted in federal court. We again could not reason why Native Americans

would malingering more or less than other racial groups. Additional *post hoc* analysis of our data, however, revealed that Native Americans in this sample received a malingering diagnosis far less often (one of 61 subjects, or 1.6%) than the other race groups, all of which had rates of malingering near the 11% mean. Further study is needed to determine the reasons for these differences.

In summary, the results from the present study indicate a relationship exists between each of the three main variables (diagnoses, criminal charges, and incompetence/insanity opinions). However, the relationship between charges and incompetence and insanity findings was mediated by diagnosis. This rejects a previous hypothesis (Rosenfeld & Ritchie, 1998) that suggested evaluators may be biased toward certain conclusions based on the criminal offense. The current results further support our hypothesis that the main variable that affects psycholegal opinions is the diagnostic presentation of the defendant. Hopefully, the findings of this study will provide further normative data for forensic evaluators to consider when making their conclusions. Clearly, however, it is only a beginning to understanding why certain defendants have particular psychological disorders that may contribute to their criminal behavior. More research is needed to determine the effect other variables may have on evaluators' decisions.

REFERENCES

- American Psychiatric Association. 1987. *Diagnostic and Statistical Manual of Mental Disorders*, 3rd edn revised. Washington, DC: Author.
- American Psychiatric Association. 1994. *Diagnostic and Statistical Manual of Mental Disorders*, 4th edn. Washington, DC: Author.
- Bendt R, Balcanoff E, Tragellis G. 1973. Incompetency to stand trial: Is psychiatry necessary? *American Journal of Psychiatry* **130**: 1288–1289.
- Berman LM, Osborne YH. 1987. Attorney's referrals for competency to stand trial evaluations: Comparisons of referred and nonreferred clients. *Behavioral Sciences and the Law* **5**(3): 373–380.
- Bittman BJ, Convit A. 1993. Competency, civil commitment, and the dangerousness of the mentally ill. *Journal of Forensic Sciences* **38**(6): 1460–1466.
- Borum R, Swartz M, Swanson J. 1996. Assessing and managing violence risk in clinical practice. *Journal of the Practice of Psychiatry and Behavioral Health* **4**: 205–215.
- Cornell DG, Hawk GL. 1989. Clinical presentation of malingerers diagnosed by experienced forensic psychologists. *Law and Human Behavior* **13**(4): 375–383.
- Dusky v. United States., 362 U.S. 402 (1960).
- Finkel NJ. 1989. The Insanity Defense Reform Act of 1984: Much ado about nothing. *Behavioral Sciences and the Law* **7**(3): 403–419.
- Gold L. 1973. Discovery of mental illness and mental defect among offenders. *Journal of Forensic Sciences* **18**: 125–129.
- Hoge SK, Bonnie RJ, Poythress N, Monahan J. 1992. Attorney–client decision-making in criminal cases: Client competence and participation as perceived by their attorneys. *Behavioral Sciences and the Law* **10**: 385–394.
- Hoge SK, Bonnie RJ, Poythress N, Monahan J, Eisenberg M, Feucht-Haviar T. 1997. The MacArthur adjudication competence study: Development and validation of a research instrument. *Law and Human Behavior* **21**(2): 141–179.
- Howard RC, Clark CR. 1985. When courts and experts disagree: Discordance between insanity recommendations and adjudications. *Law and Human Behavior* **9**(4): 385–395.
- Johnson WG, Nicholson RA, Service N. 1990. The relationship of competency to stand trial and criminal responsibility. *Criminal Justice and Behavior* **17**: 169–185.
- Miller R, Germaine E. 1988. The retrospective evaluation of competency to stand trial. *International Journal of Law and Psychiatry* **11**: 113–125.
- Nicholson RA, Johnson WG. 1991. Prediction of competency to stand trial: Contribution of demographics, type of offense, clinical characteristics, and psycholegal ability. *International Journal of Law and Psychiatry* **14**: 287–297.

- Nicholson RA, Kugler KE. 1991. Competent and incompetent criminal defendants: A quantitative review of comparative research. *Psychological Bulletin* **109**(3): 355–370.
- Packer IK. 1987. Homicide and the insanity defense: A comparison of sane and insane murderers. *Behavioral Sciences and the Law* **5**(1): 25–35.
- Reich J, Wells J. 1985. Psychiatric diagnosis and competency to stand trial. *Comprehensive Psychiatry* **26**(5): 421–432.
- Roesch R, Eaves D, Sollner R, Normandin M, Glackman W. 1981. Evaluating fitness to stand trial: A comparative analysis of fit and unfit defendants. *International Journal of Law and Psychiatry* **4**: 145–157.
- Roesch R, Golding S. 1980. *Competency to stand trial*. Urbana-Champaign, IL: University of Illinois Press.
- Rogers R, Gillis JR, McMains S, Dickens SE. 1988. Fitness evaluations: A retrospective study of clinical, criminal, and sociodemographic characteristics. *Canadian Journal of Behavioral Science* **20**(2): 193–200.
- Rogers R, Sewell KW, Goldstein A. 1994. Explanatory models of malingering: A prototype analysis. *Law and Human Behavior* **18**: 543–552.
- Rosenfeld B, Ritchie K. 1998. Competence to stand trial: Clinician reliability and the role of offense severity. *Journal of Forensic Science* **43**(1): 151–157.
- Steadman H, Monahan J, Hartstone E, Davis S, Robbins P. 1982. Mentally disordered offenders: A national survey of patients and facilities. *Law and Human Behavior* **6**: 31–38.
- Steadman HJ, Keitner L, Braff J, Arvanites TM. 1983. Factors associated with a successful insanity plea. *American Journal of Psychiatry* **140**(4): 401–405.
- Steadman H, Mulvey E, Monahan J, Clark-Robbins P, Appelbaum P, Grisso T, Roth L, Silver E. 1998. Violence by people discharged from acute psychiatric inpatient facilities and by others in the same neighborhoods. *Archives of General Psychiatry* **55**: 393–401.
- Warren JI, Fitch WL, Dietz PE, Rosenfeld BD. 1991. Criminal offense, psychiatric diagnosis, and psycholegal opinion: An analysis of 894 pretrial referrals. *Bulletin of the American Academy of Psychiatry and the Law* **19**(1): 63–69.
- Warren JI, Rosenfeld B, Fitch WL, Hawk G. 1997. Forensic mental health clinical evaluation: An analysis of interstate and intersystemic differences. *Law and Human Behavior* **21**(4): 377–390.

Copyright of Behavioral Sciences & the Law is the property of John Wiley & Sons Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.