
Does Psychiatric Disorder Predict Violent Crime Among Released Jail Detainees?

A Six-Year Longitudinal Study

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The authors examined whether jail detainees with schizophrenia, major affective disorders, alcohol or drug use disorders, or psychotic symptoms (hallucinations and delusions) are arrested more often for violent crimes six years after release than detainees with no disorders. Trained interviewers assessed 728 randomly selected male jail detainees using the National Institute of Mental Health Diagnostic Interview Schedule and then obtained follow-up arrest data for six years. Neither severe mental disorder nor substance abuse or dependence predicted the probability of arrest or the number of arrests for violent crime. Persons with symptoms of both hallucinations and delusions had a slightly higher number of arrests for violent crime, but not significantly so. These findings held even after controlling for prior violence and age. The findings do not support the stereotype that mentally ill criminals invariably commit violent crimes after they are released. Future directions for research are suggested.

There is a long-standing stereotype that persons with mental illnesses are prone to violence (Monahan, 1992; Steadman & Cocozza, 1978), an image reinforced by the news and entertainment media (Gerbner, Gross, Morgan, & Signorielli, 1981; Mayer & Barry, 1992; Wahl, 1992). Empirical research, however, provides less than definitive support for this stereotype. Some studies have found a relationship between mental disorder and violence (Lindquist & Allebeck, 1990; Schuerman & Kobrin, 1984; Sosowsky, 1978, 1980; Swanson, 1994; Swanson, Holzer, Ganju, & Jono, 1990). Others have found that, after controlling for demographic variables, the relationship disappears (Steadman, Cocozza, & Melick, 1978; Steadman & Ribner, 1980; Teplin, 1985). Even studies that found an association, however, concluded that mental disorder is a relatively small risk factor for violence (Link, Andrews, & Cullen, 1992; Monahan, 1992; Swanson et al., 1990) and that mentally ill persons do not pose a high risk in "absolute terms" (Swanson, 1994).

Yet, the stereotype persists. Perhaps the most feared group is mentally ill persons charged with or convicted

of crimes (Shah, 1990; Steadman & Cocozza, 1978). Perlin (1992) suggested that the public views such persons as the most dangerous potential offenders. No study has yet determined, however, whether this stereotype is true: We do not know whether mentally disordered offenders are more likely than nondisordered offenders to commit violent crimes after they are released from jail or prison.

This question is particularly timely because of the burgeoning of jail and prison populations. Jails in the United States are so crowded (U.S. Department of Justice, 1993) that more arrestees are being released into the community than ever before (U.S. Department of Justice, 1988). Many of those being released have mental disorders (Bland, Newman, Dyck, & Orn, 1990; Lamb & Grant, 1982; Monahan & McDonough, 1980; Nielsen, 1979; Petrich, 1976; Schuckit, Herrman, & Schuckit, 1977; Swank & Winer, 1976; Teplin, 1990b, 1994). Irrespective of their psychiatric status, all released jail detainees are at risk for committing violent crimes (U.S. Department of Justice, 1991b). The critical question is whether mental

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disorder increases the likelihood of violent criminal recidivism after release from jail.

There have been, however, few studies of jails. Most studies of mental disorder and violence have studied prison populations—sentenced offenders in long-term facilities—rather than jails. With few exceptions (Cirincione, Steadman, Robbins, and Monahan, *in press*), most have been retrospective, collecting only current charge or criminal history data. This literature yields equivocal findings: Some studies have found a relationship between mental disorder and violence (Ashford, 1989; Langevin, Ben-Aron, Wortzman, Dickey, & Handy 1987; Packard & Rosner, 1985; Roman & Gerbring, 1989; Rosner, Wiederlight, & Wiczorek, 1985; Taylor & Gunn, 1984), whereas others have not (Cirincione et al., *in press*; Hodgins & Cote, 1993; Phillips, Wolf, & Coons, 1988). Still others have found that it depends on the disorder (Collins & Bailey, 1990).

The reason for the disparities may be methodological: Most studies have not randomly sampled the full range of offenders. Studies have described specific populations, such as sex offenders (Packard & Rosner, 1985) or forensic patients (Phillips et al., 1988; Roman & Gerbring, 1989; Rosner et al., 1985), without comparing them to a control group. Taylor and Gunn (1984) focused on detainees charged with violent crimes or referred for mental health treatment. Others have studied the effect of only a few disorders (Collins & Bailey, 1990) or limited their subjects to specific criminal charges (Langevin et al., 1987). Many studies have used treatment samples (e.g., Ashford, 1989; Lamb & Grant, 1982) rather than random samples. Finally, current charge is an imperfect predictor of violence after release because it is only one sample from the subject's universe of arrests. Criminal history data are also an imperfect indicator unless the data are corrected for the time at risk—that is, the time the subject is not in jail, prison, or hospital and is thus free to engage in crime. In sum, no study has used an unbiased sample of jail detainees, an appropriate control group, reliable diagnostic measures of mental disorder, and, most important, prospective, longitudinal data on violent crime controlling for time at risk.

In this article, we examine the following question: Are jail detainees with severe mental disorders (schizophrenia or major affective disorders), substance use disorders (alcohol and drug), or psychotic symptoms (hallucinations and delusions) rearrested more often for violent crimes six years after release than are nondisordered detainees? We examine the effect of both psychiatric disorder and psychotic symptoms because recent research has suggested that psychotic symptoms may be more predictive of violence than is disorder per se (Link et al., 1992; Link & Stueve, 1994).

Our data are part of a larger project investigating the prevalence and treatment of mental disorder among jail detainees (Abram & Teplin, 1991; Teplin, 1990a, 1990b, 1994). For that epidemiologic study, we administered psychiatric interviews during jail intake to a random sample of 728 arrestees. The extensive diagnostic

information we collected provides an opportunity to compare the criminal careers of mentally ill and nonill jail detainees. Here we present six-year longitudinal arrest data to examine whether arrest rates for violent crime differed as a function of psychiatric disorder.

Method

Subjects

Diagnostic data were collected between November 1983 and November 1984 at the Cook County Department of Corrections (CCDC) in Chicago, Illinois. Like most jails, CCDC is used solely for pretrial detention and for offenders sentenced on misdemeanor charges for less than one year.

Subjects were 728 male arrestees detained at CCDC and were randomly selected after pretrial arraignment. To include a sufficient number of detainees accused of serious crimes, we stratified subjects by arrest charge (one half misdemeanants, one half felons). Persons charged with both misdemeanors and felonies were categorized as felons. Data were then weighted to reflect the jail's actual misdemeanor–felony distribution.

All detainees, excluding persons with gunshot wounds or other traumatic injuries, were part of the sampling pool. Jail personnel referred all potential subjects regardless of their mental state, potential for violence, or fitness to stand trial. Because no detainee was a priori ruled ineligible, the sample was unbiased in relation to the larger jail population.

Subjects ranged in age from 16 to 68 years, with mean and median ages of 26.3 and 25, respectively. The majority were Black (80.8%), 12% were White, and 6.5% were Hispanic. Most of the remaining (0.8%) subjects were either Asian or American Indian. Fewer than one half of the detainees were employed at the time of their arrest (42.6%). Education level ranged from 2 to 16 years, with mean and median being 10.6 and 11.0 years, respectively. These demographic characteristics are similar to those found in many large urban jails nationwide, such as in Detroit, Philadelphia, and Cleveland (U.S. Department of Justice, 1991a).

Procedure

Interviewers were three clinical psychologists, extensively trained in interviewing techniques, psychopathology, and the data collection instrument. Persons targeted by the random sampling procedure were approached by the interviewer during the routine jail intake process. Detainees who agreed to participate signed a consent form and were paid five dollars for taking part. Persons who declined to participate proceeded through intake.

Of 767 detainees approached, only 35 (4.6%) declined to participate. The low refusal rate was probably because the detainees viewed the interview as a way to avoid the crowded and dismal conditions of the regular intake area. Two subjects were excluded because the interviewer felt they were inventing their responses. Two others were duplicate subjects; they were rearrested some

time after their initial interview and randomly reselected. The final sample was 728.

Subjects were interviewed in a soundproof, private glass booth in the central intake area. Diagnostic assessments were made using the National Institute of Mental Health Diagnostic Interview Schedule (NIMH-DIS; Robins, Helzer, Croughan, Williams, & Spitzer, 1981). Empirical tests have documented the reliability of the NIMH-DIS in both institutionalized samples and the general population (Burke, 1986; Helzer et al., 1985; Robins, Helzer, Croughan, & Ratcliff, 1981; Robins, Helzer, Ratcliff, & Seyfried, 1982; in contrast, see Anthony et al., 1985).

The NIMH-DIS provides diagnostic categories rather than global psychopathology scores. Because of subject variance over time and the rarity of many disorders, it is difficult to assess the reliability and validity of psychiatric instruments (Robins, 1985). Nevertheless, a test-retest consistency check yielded results that compare favorably with other studies (Robins, 1985): 93% agreement across all diagnoses and 95% agreement for the severe disorders. Two independent interviewers gave nearly identical profiles for 85% of the cases. Interviewer consistency was maintained after the initial three-month training period using mock interviews with live subjects, spot checks, and videotape training.

We collected subjects' arrest data ("rap sheets") from Chicago Police Department records. We matched subjects to their rap sheets using the Identification Record (IR) Number, a unique number that the county assigns to each detainee. We confirmed the accuracy of the match using name, alias(es), birth date, social security number, race and ethnicity, and other key demographic information. Charges incurred outside the county or state are routinely transcribed from Federal Bureau of Investigation (FBI) and Illinois Bureau of Investigation (IBI) records. For each subject, we obtained data on arrests six years after the interview.

Psychiatric variables. To meet criteria for a disorder, the subject had to attain the *definite* or *severe* category (whichever was applicable); all *possible* or *mild* diagnoses were scored as absent. In no case did the presence of one disorder preclude the diagnosis of another disorder through exclusionary criteria (Boyd et al., 1984). Because most serious disorders tend to recur, we used lifetime diagnosis for all analyses. Subjects were scored as having hallucinations or delusions if they scored positively on any of the DIS items in these areas. We counted hallucinations and delusions as positive only if the subject reported that they were not due to drugs, alcohol, or physical illness.

Final sample size. We omitted subjects who met criteria for severe cognitive impairment ($n = 2$) because there were too few cases to analyze. The six-year follow-up data were unavailable for 38 subjects either because they had died with no known date of death ($n = 3$) or because their rap sheets were missing ($n = 35$). These 38 missing cases were similar to the entire sample on diagnosis and current charge (Teplin, 1990b, 1994): None

had lifetime schizophrenia or manic episode, 3 (7.9%) had major depressive episode, 12 (31.6%) had drug use disorders, and 22 (57.9%) had alcohol use disorder. Another 24 subjects were omitted because they were incarcerated for the entire six years. Interestingly, all 24 were in jails or prisons but never in mental hospitals. Mental disorder was not overrepresented in this subsample (Teplin, 1990b, 1994): None had schizophrenia, 2 (8.3%) had lifetime manic episode, none had major depressive episode, 4 (16.7%) had a drug use disorder, and 12 (50.0%) had alcohol use disorder. Our final sample size was 664 ($728 - 2 - 38 - 24 = 664$).

Units of analysis. Because subjects can have more than one disorder, we analyzed the data in two complementary ways:

1. Disorder as the unit of analysis. These analyses show the effect of each disorder on the dependent variable. Because many subjects have more than one disorder, the total of all the categories added together is more than the whole sample.

2. Subject as the unit of analysis. These analyses demonstrate what proportion of the sample was arrested for violent crimes. Irrespective of their comorbidity, each subject was assigned to only one diagnostic group. Because we are interested in the relationship between severe disorders and violence, we developed the following hierarchy to categorize subjects: schizophrenia, schizophreniform disorders or manic episode, major depressive episode, drug and alcohol use disorder, drug use disorder only, alcohol use disorder only, and no disorder. Persons are categorized only by the highest disorder in the hierarchy. For example, a person categorized as schizophrenic may possibly have another disorder. Likewise, a person with depression would not have a higher diagnosis but might have an alcohol use disorder. We did not categorize subjects with multiple disorders into more specific groups because the sample was not large enough to analyze the effect of comorbidity. Because our findings were the same irrespective of the unit of analysis, we present only the results based on diagnosis. (Hierarchical tables are available from the authors.)

Defining and measuring violent crime. We measured violent crime using arrest rates rather than self-reports for two reasons. First, tracking 664 released jail detainees is not feasible. Second, although self-reports have been used successfully in such populations as mental patients (Steadman et al., 1993), such data are more problematic in criminal populations because offenders often distort their criminal careers (Gottfredson & Hirschi, 1990; Hindelang, Hirschi, & Weis, 1981). Although self-reports are reliable and valid for relatively minor offenses, more serious offenses are more efficiently revealed (and with fairly little bias) by official data (Hindelang et al., 1981; Widom, 1989). For our purposes, official arrest records are the best way to collect violence data because they are reasonably complete, provide detailed information on date of arrest, and do not suffer from the biases of nonresponse or intentional misrepresentation associated with self-reports (Blumstein & Cohen, 1987).

Table 1

Probability of Being Arrested for any Violent Crime and Major Violent Crime One or More Times During Six-Year Follow-Up Period by Diagnosis, Adjusted for Time at Risk, With 95% Confidence Intervals

Psychiatric disorder	Any violent crime			Major violent crime			n
	Six-year probability of arrest	Lower 95% confidence interval	Upper 95% confidence interval	Six-year probability of arrest	Lower 95% confidence interval	Upper 95% confidence interval	
Severe disorder	.438	.346	.518	.180	.071	.277	61
Schizophrenia/mania	.453	.342	.547	.152	.026	.262	36
Depression	.430	.307	.531	.182	.039	.304	36
Any substance abuse or dependence disorder	.462	.427	.495	.174	.138	.209	405
Drug and alcohol	.441	.374	.501	.168	.106	.227	147
Drug	.451	.407	.491	.169	.115	.221	220
Alcohol	.460	.424	.494	.175	.128	.220	332
No disorder	.481	.432	.526	.196	.139	.250	255
Total	.468	.443	.493	.182	.155	.209	664

Note. There were no significant differences between the no disorder group and each diagnostic group.

We categorized the following arrest charges as violent: assault, aggravated assault, battery, aggravated battery, murder, attempted murder, manslaughter, robbery, unlawful restraint, armed violence, cruelty to children, criminal sexual assault, rape, deviant sexual assault, aggravated criminal sexual assault, and kidnapping. Non-violent crime, the residual category, included theft, burglary, drug crimes, arson, traffic offenses, probation and parole violations, and crimes against order and morals (pimping, disorderly conduct, etc.).

A common problem in longitudinal crime research is controlling for time at risk (Blumstein & Cohen, 1979; Blumstein, Cohen, Roth, & Visher, 1986). For example, a detainee who was in jail for two of the six follow-up years would have less opportunity to commit violent crime than a person who was free the entire six years. We used data from four sources to adjust our violence variables for time at risk: CCDC, the Chicago Police Department (rap sheets), the Cook County Medical Examiner's Office (deaths), and the Illinois Department of Mental Health (hospitalizations).

Results

We analyzed the data using an epidemiologic framework because it best fit our question. Epidemiologic tables allow us to assess the relative risk of violent crime between the nondisordered and disordered groups.

For each diagnostic group, we calculated four dependent variables of recidivism: (a) probability of arrest for any violent crime listed above (misdemeanor or felony); (b) probability of arrest for major violent crime (all felonious violent crimes excluding robbery); (c) the number of arrests for any violent crime; and, (d) the number of arrests for major violent crime. Our overall hypothesis is that the psychiatric disorder groups will have higher rates of violent arrest than the no disorder group. All tests are one-tailed.

Probability of Arrest for Violent Crime During Six-Year Follow-Up

Controlling for time at risk, we calculated the probability of being arrested for a violent crime for each diagnostic group by dividing the number of persons in each group who had a rearrest for a violent crime by time at risk:

$$1 - \left(1 - \frac{\text{Number of Subjects Arrested}}{\text{Time at Risk}} \right)^{72}$$

This probability represents the chance of being arrested for a violent crime during the six-year (72-month) follow-up period (Mendenhall, 1985). Except where noted otherwise, we estimated the variances and confidence intervals reported in this article with bootstrap techniques with $n = N$ and iterations = 100 (Efron & Tibshirani 1986).

Any violent crime. Table 1 reports the probability of arrest for any violent crime by diagnostic group. As noted above, the *ns* in all tables sum to more than 100% because many subjects have more than one disorder. This jail sample is highly recidivistic. Subjects had a nearly even chance (.468) of being arrested for a violent crime within six years of the interview. Using *t* tests, we tested whether any of the diagnostic groups had a higher probability of arrest than the no disorder group. There were no significant differences at the .05 level.

Major violent crime. The probability of being arrested for a major violent crime within six years of release was fairly high for the entire sample (.182). Table 1 shows that none of the diagnostic groups had a significantly higher probability of being arrested than the no disorder group at the .05 level.

Number of Arrests for Violent Crime

For each group, we calculated the ratio of the total number of arrests for violent crime to time at risk:

Number of Arrests
Time at Risk

We first estimated variances and standard errors with the Poisson approximation. Because we found evidence of overdispersion for the any violent crime variable, we estimated variances and confidence intervals with bootstrap techniques with $n = N$ and iterations = 100 (Efron & Tibshirani, 1986). Table 2 shows the ratio of the total number of arrests for violent crime to time at risk for each diagnostic group.

Any violent crime. Using t tests, we tested whether any of the disorder groups had a higher number of arrests for any violent crime than the no disorder group. Table 2 shows that there were no significant differences.

Major violent crime. Because the Poisson approximation fit these data well, reported variances and standard errors are derived from the Poisson distribution. Table 2 shows that none of the diagnostic groups had a significantly higher number of arrests for major violent crime than the no disorder group.

Effect of Psychotic Symptoms

We also performed the analyses shown in Tables 1 and 2 using psychotic symptoms—hallucinations or delusions—as the independent variable. Persons with either hallucinations or delusions did not have a significantly higher probability of being arrested for a violent crime after release. However, persons with both hallucinations and delusions ($n = 31$) had a slightly, but not significantly, higher number of arrests for violent crime (2.01) than persons with no symptoms (1.41). A post hoc power analysis showed that this difference would have been significant at the .05 level had the same difference been obtained with a larger sample ($n = 49$). There were no significant differences on major violent crime. (Tables are available from the authors.)

Controlling for Prior Violent Crime

We did not control for prior violent crime in our initial analyses because there were not enough subjects to control simultaneously for type of severe disorder (schizophrenia–manic episode vs. depression) and prior violence. In Table 3, the severe disorders are collapsed so that we can control for prior violent crime. Here, we check if interactions between prior violent crime and diagnosis masked true differences between the diagnostic groups on violent crime. Not surprisingly, a large proportion (70.0%) of these jail detainees had a history of arrest for violent crime. The disordered groups had slightly (albeit not significantly) higher rates of prior violent arrest (72%–76%) than the no disorder group (62.7%), probably because they are older (Teplin, 1990b, 1994) and have had more time to develop an arrest history.

Table 3 shows that in every diagnostic category, persons with a prior arrest for a violent crime were about twice as likely to be arrested for a violent crime during the six-year follow-up period than persons with no violent arrest record. However, the effect of prior violent crime was the same across diagnostic groups. Even after controlling for prior arrest for violent crime, none of the disordered groups had significantly higher rates than the no disorder group. We conducted the same analysis using the major violent crime variable. The results were the same. (The major violent crime table is available from the authors.)

Controlling for Age

On average, our disordered subjects were slightly older than subjects with no disorder (Teplin, 1990b, 1994). Because violent crime decreases with age (Maguire & Flanagan, 1991), we checked to see whether the effect of age masked true differences between the diagnostic groups. We modeled the reported probabilities and counts using the generalized linear model with logistic and Poisson

Table 2
Number of Arrests for Violent Crimes and Major Violent Crimes Per Six-Year Period by Diagnosis, Adjusted for Time at Risk, With 95% Confidence Intervals

Psychiatric disorder	All violent crimes			Major violent crimes			n
	Six-year number of arrests	Lower 95% confidence interval	Upper 95% confidence interval	Six-year number of arrests	Lower 95% confidence interval	Upper 95% confidence interval	
Severe disorder	1.43	0.95	1.91	0.24	0.11	0.36	61
Schizophrenia/mania	1.56	0.97	2.16	0.19	0.05	0.33	36
Depression	1.31	0.63	1.99	0.24	0.08	0.40	36
Any substance abuse or dependence disorder	1.52	1.27	1.76	0.23	0.18	0.27	405
Drug and alcohol	1.49	1.07	1.92	0.23	0.15	0.31	147
Drug	1.40	1.10	1.69	0.22	0.16	0.28	220
Alcohol	1.58	1.28	1.89	0.23	0.18	0.28	332
No disorder	1.27	1.08	1.47	0.26	0.20	0.32	255
Total	1.43	1.26	1.59	0.24	0.20	0.28	664

Note. There were no significant differences between the no disorder group and each diagnostic group.

Table 3

Probability of Being Arrested for any Violent Crime One or More Times During Six-Year Follow-Up Period by Diagnosis and Prior Violence, Adjusted for Time at Risk, With 95% Confidence Intervals

	No prior violence				Prior violence				% with prior violence	n
	Six-year probability of arrest	Lower 95% confidence interval	Upper 95% confidence interval	n	Six-year probability of arrest	Lower 95% confidence interval	Upper 95% confidence interval	n		
Psychiatric disorder										
Severe disorder	.221	.019	.381	17	.504	.412	.582	44	72.1	61
Any substance abuse or dependence disorder	.283	.209	.350	103	.518	.485	.549	302	74.6	405
Drug and alcohol	.205	.090	.305	37	.510	.451	.562	110	74.8	147
Drug	.307	.195	.404	60	.502	.445	.553	160	72.7	220
Alcohol	.229	.136	.312	80	.524	.487	.558	252	75.9	332
No disorder	.329	.254	.396	95	.574	.526	.617	160	62.7	255
Total	.307	.255	.355	199	.529	.504	.553	465	70.0	664

Note. There were no significant differences between each disorder group and the no disorder group within each prior violence category.

specifications (Agresti, 1990). Our reported findings could not be accounted for by age differences between the comparison groups. (Tables are available from the authors.)

Discussion

Our sample of jail detainees was highly recidivistic: Nearly one half were arrested for a violent crime during the six-year follow-up period. In this extremely recidivistic population, however, psychiatric disorder did not increase the probability of being arrested for violent crimes after release. This finding still obtained even after controlling for age and prior violence.

A history of both hallucinations and delusions increased the number of arrests for violent crimes after release, but not significantly. This finding might have been stronger if we had had data on the recency of the psychotic symptoms. Nevertheless, this pattern corroborates prior studies (Link et al., 1992; Link & Stueve, 1994) and suggests that psychotic symptoms may be more powerful predictors of violent crime than diagnoses per se (Link et al., 1992; Link & Stueve, 1994).

One potential threat to validity should be highlighted: Perhaps serious mental disorder failed to predict the probability of arrest for violent crime because the mentally ill subjects were hospitalized instead of arrested when they were violent (Klassen & O'Connor, 1988). This is unlikely. In Illinois, mentally ill persons suspected of a felony must be arrested and then treated at the jail. In practice, even mentally ill misdemeanants are usually arrested before being treated (Teplin, 1984). Because of their arrest history, former jail detainees may be more likely to be rearrested than hospitalized when they are violent.

Several limitations of this study should be kept in mind. First, the dependent variable—violence—incorporated only detected crime. Many crimes are not detected or do not culminate in an arrest. Thus, our arrest data can be used only to compare the mentally ill groups with the no disorder group. We cannot use arrest data to

infer the overall prevalence of violent crime among released mentally ill jail detainees. Second, because our sample was random, the number of subjects with severe mental disorders was relatively small and did not allow us to control for potentially important variables such as psychiatric comorbidity.

Because our sample included only jail detainees, our data cannot be used to draw inferences about the relationship between mental disorder and violence in the general population. Nevertheless, our major finding—that psychiatric disorder was irrelevant to the probability of arrest for violent crime after release—has important public policy implications for judicial decision making. Mental disorder alone is not a meaningful variable when deciding who should be released before trial or given probation. Our data do confirm, however, that irrespective of psychiatric disorder, one of the best predictors of future violent crime is prior violent crime (Monahan & Steadman, 1983).

We suggest several directions for future research:

1. Explore the role of specific symptoms of mental disorder in violence. It is possible that mental disorder is too heterogeneous a phenomenon to reliably predict violence. For example, certain symptoms, their duration, and age of onset may vary between two people who meet criteria for the same disorder. These aspects of a disorder may be more meaningful predictors of violence than diagnosis per se. Recent research has focused on the role of psychotic symptoms in predicting violence (Link et al., 1992; Link & Stueve, 1994). This work merits further study in view of Link et al.'s work and the findings of this study.

2. Comorbidity. Many detainees with schizophrenia or major affective disorders also have substance abuse or antisocial personality disorder (Abram & Teplin, 1991). Despite the prevalence of comorbidity, its impact on violent crime has yet to be determined. Alcohol intoxication and antisocial personality disorder have been linked to

violence (Collins, 1993; Pernanen, 1991). The effect of drug use disorders on violence is still being debated (cf. Abram, 1989; Gandossy, Williams, Cohen, & Harwood, 1980; Swanson, 1994). Robins (1993) suggested that severe psychopathology is much less important in predicting crime than are the disorders that often co-occur with severe disorders—antisocial personality and substance abuse. Clearly, further research is necessary to disentangle the effects of the various disorders on violent crime.

3. Actuarial methods. Predictions can be improved by using actuarial techniques to better identify those mentally ill who are at risk for repeated violence (Monahan, 1981, 1984). Such studies require extremely large samples. A new research study designed to improve violence predictions holds great promise (Steadman et al., 1993). Ideally, actuarial techniques would allow us to discriminate between mentally ill persons who are not likely to commit violent acts after release from those who might (Harris, Rice, & Quinsey, 1993).

Further research is needed to critically examine the stereotypes of mentally ill persons portrayed in the media (Hyler, Gabbard, & Schneider, 1991; Mayer & Barry, 1992; Signorelli, 1989; Wahl, 1992). Research is also vital to help mental health professionals make better decisions concerning the violence potential of mentally ill persons (Lidz, Mulvey, & Gardner, 1993). By learning to predict violence more accurately, we will balance our responsibility to treat mentally disordered offenders with our obligation to protect the safety and welfare of the public.

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