RESEARCH TRIANGLE INSTITUTE

(DRAFT)

Summary of Findings

THE RELATIONSHIP OF MENTAL DISORDER TO VIOLENT BEHAVIOR

James J. Collins
Susan L. Bailey
Charles D. Phillips
Amy Craddock

Research Triangle Institute
Center for Social Research and Policy Analysis
P.O. Box 12194
Research Triangle Park, NC 27709

October 1988

Research for this report was made possible through the National Institute of Justice (Grant 86015-CX-0034). Points of view are those of the authors and do not necessarily represent the official policies or positions of the U.S. Department of Justice. Some of the data used here were collected under NIMH grant No. R01-MH34895. The authors appreciate the comments of Drs. William E. Schlenger, John A. Fairbank, B. Kathleen Jordan, and the editorial assistance of Elizabeth Cavanaugh.

Summary of Findings

THE RELATIONSHIP OF MENTAL DISORDER TO VIOLENT BEHAVIOR

BACKGROUND

The relationship of mental disorder to violent behavior has been the focus of research, debate, and speculation for as long as the two concepts have existed. The case of Daniel M'Naghten, who was judged insane after his attempted murder of the British Prime Minister in 1853, is usually considered the first formal legal recognition that a "disease of the mind" may cause individuals to engage in criminal behavior. Behavioral scientists have attempted to understand whether or under what circumstances a disordered mental state might lead to violence, but neither psychiatry nor criminology has provided definitive answers. Very complex and fundamental behavioral, social, scientific, as well as political issues are involved.

Mental disorder includes diverse conditions such as schizophrenia, anxiety, and substance abuse disorders. Diagnosis of each disorder type is complex and involves subjective judgments. Violence is also a heterogeneous phenomenon, both in terms of type and severity; it can involve a fatal attack by a stranger, sexual assault, and physical fights between family or friends. Even when carefully defined, measurement of mental disorder and violence is problematic, both because of the conceptual and empirical complexities and because serious disorder and violence occur rarely in the general population. Previous studies have tended to focus on subjects already formally identified as disordered or violent such as mental patients and inmates of jails or prisons. These are "biased" samples so that the generalizability of research findings to identifiable populations is usually problematic. When representative samples are used, study findings are often problematic because the low incidences of mental disorder and violent behavior types do not provide sufficient numbers to support extensive quantitative analysis.

CURRENT STUDY

The research summarized here has attempted to advance understanding of the mental disorder/violence relationship by dealing with a number of methodological problems of past research. Mental disorder and symptom types have been carefully specified and are used consistently in making diagnoses. The disorder classification system developed by the American Psy-

chiatric Association and published in its Diagnostic and Statistical Manual (Third Edition) (DSM-III) was the basis for classifying individual's mental health status and the existence of psychiatric symptoms. The analyses used specific indicators of disorder and symptoms to examine the disorder/violence relationship.

Previous research has typically relied on a single violence measure such as aggressive behavior by inpatient research subjects or rearrest of discharged mental patients. The research summarized here used various indicators--self-reports of arrest and fighting, police records of arrest, and incarceration records. The type of violent behavior was also distinguished. Violence was classified as expressive--operationalized as assaultive behavior including homicide, rape, aggravated assault and fighting, or instrumental--operationalized as the offense of robbery where force or threat of force is used to take money or goods.

The research report has used multivariate methodologies to control for multiple sources of variation. Much past work has not done this making it impossible to eliminate alternative hypotheses in assessing the disorder-violence relationship. Younger individuals, for example, are known to engage more frequently than older individuals in some forms of violence. If age variation is not controlled when the disorder/violence relationship is analyzed, interpretation is difficult.

The major methodological limitation of this study is the generalizability of findings. The sample studied included only males recently incarcerated for a serious offense in a state correctional system. A number of factors, however, mitigate this disadvantage:

- the inmate sample includes both individuals who have psychiatric disorder and symptom histories and individuals who do not;
- some of the inmates have violence histories, many do not;
- the demographic characteristics of the inmate sample from this single state system are similar to those of state prison inmates nationally;
- given the elevated prevalences of disorder and violence histories among the inmates, analyses are less inhibited than usual by low prevalences and resulting small cell sizes.

In addition, the analyses were limited in dealing with the temporal relationship of disorder and violence--thus limiting the causal inferences that can be drawn. In summary, while the research reported here has important limitations, it also includes enhancements that help advance understanding of the disorder/violence relationship.

FINDINGS

The prevalence of some kinds of mental disorder was much higher in the inmate sample (Table 1) than in the general population. This was most

clearly the case for alcohol and drug abuse or dependence and antisocial personality disorder.

Table 1. Lifetime Prevalence Rates for DSM-III Psychiatric Disorders: North Carolina Male Felon Prison Inmates (n=1140)

Type of Disorder	Prevalence (%)
Alcohol abuse/dependence	49.5
Antisocial personality	28.9
Sexual dysfunction	21.0
Substance abuse/dependence (any)	18.8
(opioids)	(9.4)
(cocaine)	(2.5)
(barbiturates)	(6.0)
(amphetamines)	(6.7)
(hallucinogens)	(1.4)
(marijuana)	(17.8)
Simple phobia	11.2
Major depressive episode	5.3
Agoraphobia	5.0
Obsessive compulsive	4.1
Dysthymia	3.5
Post traumatic stress	2.3
Social phobia	2.1
Pathological gambling	1.9
Schizophrenia	1.4
Manic episode	1.1
Bipolar	0.8
Cognitive deficit (severe)	0.4
Schizophreniform	0.0
Anorexia nervosa	0.0
Panic	0.0
Any disorder	77.5

Note: Percentages exceed 100 due to multiple diagnoses. Specific drug disorder prevalences exceed the overall 18.8 percent rate due to multiple diagnoses.

The prevalence of most other disorder types are not high. Standard errors of prevalence estimates for the inmates and general population samples do not allow conclusions to be drawn about differences in disorder prevalences.

The study focused on the relationships of several lifetime disorder and symptom categories to violence:

- schizophrenia,
- post traumatic stress disorder (PTSD),

- mood disorders (depression, mania, etc.),
- six factor analytically derived categories of problem drinking,
- five drug abuse/dependence categories (opiates, cocaine, barbiturates, amphetamines, marijuana).

The study also examined the relationship between the various disorder categories and involvement in institutional infractions, including violent ones.

Six violence indicators were used.

- multiple incidents of fighting since age 18 (self-report),
- arrest for a violent offense in the year before incarceration (self-report),
- an arrest history for homicide, rape, or serious assault, i.e., for "expressive" violence (state police criminal histories),
- an arrest history for robbery, i.e., for "instrumental" violence (state police criminal histories),
- currently incarcerated for homicide, rape, or serious assault, i.e., for "expressive" violence (Department of Correction records),
- currently incarcerated for robbery, i.e., for "instrumental" violence (Department of Correction records).

The relationship between the above disorders and each of the violence indicators were examined using a multivariate analytic strategy. Three demographic variables known to be associated empirically with violence (age, race, education) were included in all models. Whenever there were enough cases, problems drinking was also included in models to control for the frequently observed relationship between drinking and violence. When appropriate, other control variables were used. For example, the antisocial personality disorder variable was sometimes included to test whether observed disorder/violence relationships were affected when this factor was introduced.

When variation accounted for by demographic and other factors is controlled, only selected mental disorders or symptoms appear to be related to violence. The major significant disorder/violence relationships are summarized as follows:

1. There is some limited evidence of a direct relationship between a lifetime diagnosis of schizophrenia and hallucination symptoms and expressive violence. Because the number of individuals diagnosed as schizophrenic and/or exhibiting hallucination symptoms is low, these findings should be interpreted cautiously.

2. A direct relationship of post traumatic stress disorder (PTSD) and its symptoms to arrest and incarceration for expressive violence was found. Temporal analyses indicated that, for the large majority of subjects who experienced PTSD symptoms and had an arrest history for expressive violence, the symptoms occurred before arrest for violence. This temporal ordering is consistent with viewing PTSD symptoms as etiologically relevant to expressive violence.

3. Evidence for a direct relationship between mood disorders (depression, mania, etc.) and violence is inconsistently observed and statistically weak. A consistent relationship of dysthymia (persistent depressed mood) to arrest and incarceration for robbery and adulthood fighting is observed. There is limited evidence of a relationship between mania symptoms and violence.

4. Some aspects of problem drinking are directly related to violence, and there is some evidence of an inverse relationship between the problem drinking symptom category of pathological/excessive use and expressive violence. In general, though, evidence for a direct problem drinking/violence relationship is stronger for expressive than for instrumental violence.

5. There is some evidence of a direct relationship between inmates' mental health status and their involvement in four different kinds of institutional infractions. Certain types of disorders are associated with some types of infractions, but no disorder/violent infraction relationship was found. Mental health status explains very little variation in prisoners' infraction records.

The findings can be viewed with a measure of confidence because some known correlates of violence were controlled. Specific disorder diagnoses were based on consistently applied, standard psychiatric nomenclature, and multiple indicators of violence were employed. On the other hand, the capacities of disorders and symptoms that were found to be related to violence are not powerful in terms of variation accounted for, and the findings may not be widely generalizable due to the study sample.

The findings of this study demonstrate the value of examining the mental disorder/violence relationship using specific symptom and disorder measures. It is clear that use of very general measures of mental disorder will not help to advance understanding. The foregoing analyses show clearly that only some disorders and some symptoms vary systematically with violent behavior. This study has also attempted to distinguish expressive and instrumental violence and has relied on a variety of data sources such as self-reports, and arrest, and incarceration records. Findings have demonstrated that disorder/violence relationships depend in part on which violence measure is used.

IMPLICATIONS

A view widely circulated within the criminology community has been that when variation accounted for by demographic and other factors is controlled mental disorders and crime vary independently of one another (Monahan and Steadman, 1983, 1984). The evidence summarized here as well as other evidence cited in the full report suggest this conclusion is inaccurate. The evidence indicates there is a relationship between some disorders and disorder symptoms and violence. The strengths of the relationships observed do not suggest that disorder is a major factor in accounting for the level of interpersonal violence in society, but a disordered mental state appears sometimes to be an important etiological factor.

Future study of the mental disorder/violence relationship may be advanced by attempts to replicate some of the analyses reported here. The results of replicative research, especially using nonprison inmate study subjects, testing alternative indicators of violence, and conducting temporal analyses will suggest whether the results reported here are robust. Replications will also provide guidance for theoretical development to understand the reasons why or how some mental states and symptoms raise the risk of violent behavior. Complex explanatory schemes are likely to be required.

At least two public policy implications can be drawn from the findings of this research. Both are derivable from the findings that (1) disorder or disorder symptoms are sometimes important risk factors for violence, but (2) in the aggregate, disorder does not by itself account for a large disproportion of violence. Because disorder is not a powerful "marker" variable, its potential to direct public policies aimed at controlling violence is limited. The relationships are simply not strong enough to warrant attempts to control violence by a general focus on mental disorder. There are many good reasons to invest in palliative actions for individuals who have mental problems, and to focus on specific risk categories that are associated with violence. However, the hope of reducing the level of societal violence through such actions is not a realistic expectation.

Finally, public concern that current or former mental patients account for a large disproportion of interpersonal violence exaggerates the risk. Individuals who can speak publically and authoritatively about the risk of violence induced by mental disorder should characterize that risk accurately. The public should be made aware that only some features of disorder elevate violence risk, and that even these risk factors are weak predictors and probably operate in concert with other individual, situational, and structural factors.

REFERENCES

Monahan, J., & Steadman, H. (1983). Crime and mental disorder: An epidemiological approach. In N. Morris & M. Tonry (Eds.), Crime and justice: An annual review of research. Chicago: University of Chicago Press.

Monahan, J., & Steadman, H.J. (1984). Crime and mental disorder. NIJ Special Report. Washington, DC: National Institute of Justice.