

Analyzing Offense Patterns as a Function of Mental Illness to Test the Criminalization Hypothesis

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Objective: Programs for offenders with mental illness seem to be based on a hypothesis that untreated symptoms are the main source of criminal behavior and that linkage with psychiatric services is the solution. This study tested this criminalization hypothesis, which implies that these individuals have unique patterns of offending. **Methods:** Participants were 220 parolees; 111 had a serious mental illness, and 109 did not. Interview data and records were used to reliably classify offenders into one of five groups, based on their lifetime pattern of offending: psychotic, disadvantaged, reactive, instrumental, or gang- or drug-related affiliation. The distributions of those with and without serious mental illness were compared. **Results:** A small but important minority of offenders with a mental illness (7%, N=8) fit the criminalization hypothesis, in that their criminal behavior was a direct result of psychosis (5%, N=6) or comprised minor “survival” crimes related to poverty (2%, N=2). However, the reactive group contained virtually all offenders with a mental illness (90%, N=100) and the vast majority of offenders without a mental illness (68%, N=74), suggesting that criminal behavior for both groups chiefly was driven by hostility, disinhibition, and emotional reactivity. For most offenders with a mental illness in the reactive group, crime was also driven by substance dependence. **Conclusions:** Offenders with serious mental illness manifested heterogeneous patterns of offending that may stem from a variety of sources. Although psychiatric service linkage may reduce recidivism for a visible minority, treatment that targets impulsivity and other common criminogenic needs may be needed to prevent recidivism for the larger group. (*Psychiatric Services* 61:1217–1222, 2010)

Given that 14%–31% of offenders have a major mental illness, there are well over one million people with major mental illness involved in the criminal justice

system in the United States (1,2). The Los Angeles County jail system has effectively become one of the largest mental health facilities in the country, treating nearly 3,300 inmates each

day (3). Although there is little doubt that mental illness is disproportionately represented in the criminal justice population, the reasons for this phenomenon are less clear.

Perhaps the most widely embraced explanation for the prevalence of mental illness in criminal justice settings is the criminalization hypothesis (4). Although there are different variants, the hypothesis essentially posits that people with mental illness become entangled in the legal system because the mental health resources they need are not available in the community (5). Deinstitutionalization is often cited as the distal source of this problem. For a variety of reasons, state psychiatric hospitals began emptying decades ago (6). Federal support for mental health care had also declined (7), leaving insufficient resources for effective community-based treatment. According to the criminalization hypothesis, people who cannot access needed care in the community are arrested and, in effect, moved from the medical system into the criminal justice system (8). These individuals ostensibly are arrested for psychosis-induced violence, disturbed behavior on the street, or “survival-type” crimes (for example, “dine and dash” from a restaurant). They are taken into custody because they break the law, are perceived as in need of treatment that could be provided in jail, or both (9).

The criminalization hypothesis drives much contemporary policy re-

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lated to offenders with mental illness (10). An array of programs for this population (such as mental health courts and specialty probation) focus on using criminal justice involvement to leverage psychiatric care, perhaps on the basis of the notion that effective care will address the root of the problem and thereby prevent reoffense and reincarceration. The implicit assumption is that this population is involved in the criminal justice system chiefly or solely because of untreated mental illness.

A growing body of evidence challenges this assumption. First, several studies suggest that the strongest risk factors for crime and recidivism are shared by offenders with and without mental illness (11–13) and that offenders with mental illness manifest even more of these general risk factors (including antisocial cognition and criminogenic peers) than offenders without mental illness (14–16). Second, a study of offenders eligible for a jail diversion program indicated that arrests are attributable to psychiatric symptoms for only a small minority of offenders with mental illness (13). Junginger and colleagues (13) interviewed 113 offenders with co-occurring mental and substance use disorders shortly after their arrest.

Using interview data and police records, they reliably rated the extent to which the index offense “probably” or “definitely” was produced by symptoms of mental illness or substance abuse. Mental illness had a direct or indirect influence on the index offense in only 8% (N=8) of cases; substance use disorders had such an effect in 26% (N=29) of cases. For two-thirds of offenders with serious mental illness, however, the index offense was unrelated to symptoms of either disorder. For these offenders, “more powerful risk factors for crime,” as the authors put it, may have been at work.

Such studies suggest that offenders with a mental illness are a heterogeneous group that may not be well served by simply focusing on symptoms as the source of problematic criminal behavior and linkage with psychiatric services as the solution. Describing the heterogeneity in this group’s pattern of offending is the first step toward developing tailored interventions that will maximally reduce recidivism. Comparing this group’s offense patterns with those of general offenders is the first step toward assessing how well correctional programs that have been shown to reduce recidivism will gen-

eralize to offenders with mental illness. Programs that focus on symptom reduction may be appropriate for one subgroup, but it may be necessary to target such factors as antisocial cognition to reduce recidivism in other subgroups.

This study was designed to accomplish these descriptive and comparative goals, using a top-down approach. Our first task was to integrate past theory and research to develop the five-group typology shown in Table 1. This typology expands Hiday’s (17) hypothesized three-group typology of offenders with mental illness to also accommodate offenders without mental illness. The first two groups fit the criminalization hypothesis and are drawn directly from Hiday’s typology: a psychotic subgroup whose criminal behavior is driven by delusions or hallucinations and a subgroup that chiefly commits misdemeanors and survival crimes (shoplifting, for example) because of socioeconomic disadvantage that can be based on mental illness.

We disaggregated Hiday’s third group of offenders (who largely commit crime because of co-occurring antisocial traits) into two subgroups that map onto an empirically supported distinction between primary and sec-

Table 1

Offender typology and classification criteria^a

Item	Psychotic	Disadvantaged	Reactive	Instrumental	Gang or drug related
Typical pattern of crime	Violent offenses driven by delusions or hallucinations	Survival crimes such as shoplifting	Reactive violence or crimes driven by hostility and impulsivity	Instrumental, goal-driven crimes; involves manipulation or deceit	Crimes driven by drug or gang involvement
Typical personal background	Prior hospitalizations for mental illness; poor employment and functioning	Impoverished; no access to basic needed resources	Emotional problems, poor coping skills, unstable relationships	Emotionally stable, bold; antisocial behavior and detachment from others	Gang membership or substance dependence
Arrest example	Person with paranoid schizophrenia kills a family member	A person who is homeless is arrested for dining and dashing	Assault or domestic violence	Armed robbery	Gang member who is arrested for selling cocaine
Inclusion criteria	Crime takes place as a direct result of delusions and hallucinations	Crime driven primarily by the need to survive	Emotionally reactive, hostile, impulsive crime	Emotionally detached, stable, bold, instrumental crime	Crime stems from gang involvement or drug use
Exclusion criteria	Crime is unrelated to psychotic symptoms	Crime is unrelated to survival	Emotional stability or detachment; instrumental crimes	Emotional instability; pronounced impulsivity	Crimes are not chiefly driven by gang or drug involvement

^a This typology represents an expansion of Hiday’s (17) three-group typology.

ondary psychopathy (18,19) among general offenders (20). The primary subgroup (constituting the fourth group of our typology) has traits of boldness, hostility, and emotional detachment that can drive instrumental criminal behavior (motivated by goals like material gain), whereas the secondary subgroup has traits of disinhibition and emotional disturbance that drive reactive criminal behavior (emotionally motivated responses to perceived provocation). The fifth subgroup captures individuals whose crimes chiefly relate to gang activity or substance abuse and addiction, given that researchers (21) and correctional agencies often classify “gang” and “substance abuse” offenders for special processing (22).

Our second task in this study was to review offense patterns for parolees with and without a mental illness to classify each offender into one of these five groups. We chose this top-down approach because bottom-up approaches such as cluster analysis risk identifying sample-specific groups; this theory-based approach allowed us to directly test the criminalization hypothesis.

According to the criminalization hypothesis and contemporary policy, the distributions of offenders with and without mental illness should look quite different across this typology. Those with a mental illness would typically commit offenses as a result of their mental illness, either because of active psychosis or survival behaviors. According to a growing body of evidence, however, there may be substantial overlap in the distributions of the two groups, with factors unique to mental illness explaining offense patterns for a small minority of offenders with a mental illness and general risk factors explaining offense patterns for the majority of that group. In this study, we tested these competing hypotheses.

Methods

Participants and recruitment

Study procedures were approved by the University of California, Irvine, Institutional Review Board. Eligibility criteria included being released from prison within the previous three months, being on active parole in the

inner Los Angeles district, being age 18 or older, having no recorded diagnosis of intellectual disabilities, and being competent to consent to research. Of the 221 participants, approximately half (N=112) had a serious mental illness. Offenders with a mental illness were required to have an officially designated serious mental illness; such designations are assigned by prison staff as part of a specialized reentry program.

Offenders with a mental illness were recruited from lists of those who would be released to the relevant parole outpatient clinic each month. Offenders without a mental illness were recruited from mandatory parole orientation meetings that were held weekly. During recruitment, efforts were made to match offenders without a mental illness to those with a mental illness on basic demographic characteristics (such as gender, ethnicity, and age group). Eligible offenders were contacted via letter, telephone, parole office visit, and, when needed, home visit. The target date for the interview was eight weeks after prison release, and offenders were dropped from recruitment if they could not be interviewed within 14 weeks. Of eligible offenders with a serious mental illness, 63% were interviewed (N=112), 19% (N=34) could not be interviewed within 14 weeks, and 18% (N=32) refused. Of eligible offenders without a mental illness, 62% were interviewed (N=109), 20% (N=35) could not be interviewed within 14 weeks of release, and 18% (N=32) refused. There were no significant demographic differences between offenders with mental illness who did and did not enroll in the study.

Data collection and classification

Collecting baseline data. Interviews were conducted in private rooms at the parole office, community institutions, public places, or home. After complete description of the study to the participants, written informed consent was obtained. Interviews consisted of a one- to two-hour semi-structured interview that covered the following domains: criminal history and offense pattern, recreation, substance abuse and dependence, educa-

tion, employment, social support, procriminal attitudes, family, relationships, and mental health history. All available records were also reviewed. After the interview, participants were paid \$25.

Classifying participants. Participants were classified into one of five groups described in Table 1: psychotic, disadvantaged, reactive, instrumental, or gang activity or drug abuse. Four judges completed two training sessions that included reviewing the typology and classification manual (available from the first author), coding and discussing practice cases, and testing reliability. On the basis of eight training cases, these judges manifested a “good” (23) chance-corrected level of interrater agreement on classifications ($\kappa=.66$).

Each judge used a coding sheet to structure review of participants’ interview and record files, recording evidence for and against classification into each of the five categories. After reviewing all available material and revisiting the classification manual, judges used their holistic impression of the offender to make a final group classification and rated their level of confidence (from 1 to 5, with 5 being most confident) in this classification. When a judge was not confident in his or her classification (that is, the rating was below 3 points), that participant was independently classified by two other judges, and the final classification was based on at least two judges’ agreement. Judges were less than confident in only 28% (N=61) of classifications. For most of these cases (94%; N=57), the final classification was based on at least two judges’ agreement. The second author made the final determination in the four remaining cases.

Coding recidivism. An average of 1.4±.2 years after participants completed their interview, researchers revisited the parole office to review an electronic database and code whether offenders had a record of another offense during the year. Recidivism was defined as a return to state prison custody for any offense (technical violation or new arrest) within one year of the baseline interview. Only one participant’s records could not be coded at follow-up.

Results

Characteristics of offenders

As shown in Table 2, most participants were male and African American, and there were no differences between those with and without mental illness in terms of demographic characteristics and criminal history. The modal chart diagnosis for those in the group with mental illness was schizophrenia or another psychotic disorder. Approximately half of the participants also had a diagnosis of a co-occurring substance use disorder (N=52, 47%).

Describing and comparing offender groups

Primary classification. The primary classifications of offenders are presented in Table 3. Only 7% (N=8) of offenders with a serious mental illness fell into the psychotic and disadvantaged groups that fit the criminalization hypothesis. Virtually all offenders with mental illness (90%) fell into the reactive group, which also captured most offenders without mental illness (68%).

Although they shared the same modal classification, offenders with

and without serious mental illness had significantly different distributions ($\chi^2=34.94$, $df=4$, $p<.001$). As shown in Table 3, only offenders with serious mental illness fell into the psychotic group, only offenders without mental illness fell into the group with gang affiliation or drug abuse, and offenders without mental illness seemed more likely to fall into the instrumental group. To isolate specific differences, all pairwise comparisons between groups (N=10) were tested with Fisher's exact tests and a Bonferroni correction to maintain a family-wise error rate of $p<.05$. Three pairwise comparisons were significant: gang-drug versus reactive groups ($\chi^2=22.66$, $df=1$, $p<.001$), gang-drug versus psychotic groups ($\chi^2=25.00$, $df=1$, $p<.001$), and instrumental versus psychotic groups ($\chi^2=11.20$, $df=1$, $p<.005$). These findings suggest that the gang-drug and psychotic groups chiefly drove the overall differences between offenders with and without mental illness.

Secondary classification for reactive group. Because a large number of cases fell into the reactive group, we used the classification rules and procedures described earlier to assign a secondary classification to better describe these cases. Based on exclusionary criteria, participants classified as reactive had already been ruled out of the psychotic, disadvantaged, and instrumental groups. Therefore, we focused on determining whether these participants had an offense pattern that was secondarily driven by gang involvement or drug use.

Of the 174 participants in the reactive category, about half of offenders with (43%, N=43) and without (55%, N=41) mental illness were also involved in gang activity or drug abuse. However, reactive offenders with mental illness (74%, N=74) were significantly more likely than reactive offenders without mental illness (53%, N=39) to have a secondary classification of drug abuse ($\chi^2=8.21$, $df=1$, $p<.01$). For offenders whose criminal behavior chiefly was driven by emotional reactivity and impulsivity, gang membership and drug abuse were also common, with drug abuse being particularly common among offenders with mental illness.

Table 2

Characteristics of offender subsamples for persons with or without serious mental illness

Characteristic	With mental illness (N=112)		Without mental illness (N=109)	
	N	%	N	%
Sociodemographic				
Age (M±SD)	41±9		38±9	
Male	96	86	98	90
Race-ethnicity				
White	9	8	8	7
African American	79	71	77	71
Hispanic	18	16	21	19
Other	6	5	3	3
Years of education (M±SD)*	11±2		12±2	
Ever married*	37	33	41	38
Currently unemployed**	96	86	73	67
Criminal				
Age at first arrest (M±SD)	17±6		18±7	
Lifetime arrests				
1	1	<1	3	3
2	3	3	9	8
≥3	108	96	97	89
Most serious charge ever				
Person	92	82	78	72
Property	11	10	20	18
Drug	8	7	9	8
Minor	1	<1	2	2
Days released at time of baseline interview (M±SD)	64±27		58±31	
Clinical				
Recorded primary diagnosis				
Schizophrenia or other psychotic disorder	59	53	—	
Bipolar disorder	17	15	—	
Major depressive disorder	18	16	—	
Other	18	16	—	
Mental or emotional treatment in past 3 months***	102	91	16	15
Self-reported substance abuse in past month				
Drank to intoxication	46	41	49	45
Used other substances to get high	37	33	29	27

* $p<.05$

** $p<.01$

*** $p<.001$

Classification and recidivism risk

Next, we explored the relation between offenders' classification and their return to prison custody within one year. As shown in Table 4, those in the reactive group had the highest likelihood of returning to custody (26%, N=45), followed by the instrumental group (20%, N=3), the psychotic group (17%, N=1), and the gang-drug group (16%, N=3). Given small cell sizes, these differences did not reach statistical significance. Also shown in Table 4, the pattern of risk by classification was similar for offenders with and without mental illness.

Discussion

The results of this study provide limited support for the criminalization hypothesis that largely drives contemporary policy for offenders with mental illness. In this sample of offenders with serious mental illness, criminal behavior occasionally was a direct result of hallucinations and delusions (5%, N=6) or comprised minor "survival" crimes related to socioeconomic disadvantage (2%, N=2). This finding indicates that a small but important minority of offenders with mental illness (7%, N=8) fit a direct or indirect form of the criminalization hypothesis.

Would criminalized subgroups be more prevalent among persons who committed less serious offenses? This is certainly possible, given that our sample as a whole had multiple past offenses, had spent years in prison, and lived in a disadvantaged area of a large city. However, there is evidence that our results generalize to those who commit less serious offenses and to nonoffenders. First, among offenders deemed eligible for diversion from jail to psychiatric treatment,

Table 3

Offense pattern for offenders with and without serious mental illness

Offender type	With mental illness (N=111)		Without mental illness (N=109)		Total (N=220)	
	N	%	N	%	N	%
Psychotic	6	5	0	—	6	3
Disadvantaged	2	2	4	4	6	3
Reactive	100	90	74	68	174	79
Instrumental	3	3	12	11	15	7
Gang or drug related ^a	0	—	19	17	19	9

^a A subclassification of this group indicated that the secondary pattern was drug based (74% and 53% for offenders with and without mental illness, respectively).

Junginger and colleagues (13) found that only 8% (N=8) had been arrested for behavior directly or indirectly attributable to mental illness. Second, on the basis of a sample of over 608 violent incidents that involved psychiatric patients enrolled in the MacArthur Violence Risk Assessment study, only 11% (N=67) were rated as having occurred while patients were delusional or hallucinating (24).

The findings of this study need to be replicated in order to draw definitive conclusions. Additional evidence is particularly needed to validate the typology (in other words, whether offender types moderate the relation between psychiatric treatment and recidivism). Still, taken together, these studies suggest that symptoms are a direct or leading cause of criminal behavior for about one in ten offenders with serious mental illness. For these offenders, the covariation between their most visible status (mental illness) and present state (justice involvement) is not merely an illusory correlation (25), and the current policy emphasis on linkage with psychiatric services should go far in prevent-

ing new victims and new arrests. For most offenders with serious mental illness, however, services that can and should be delivered to improve clinical outcomes may not translate into reduced recidivism (10).

A comparison of the distributions of offenders with and without mental illness across the typology (Table 3) reveals more commonalities than differences. Regardless of psychiatric status, most offenders had patterns of criminal behavior that chiefly were driven by hostility, disinhibition, and emotional reactivity. Substance dependence was often an important secondary driver of offending, particularly for offenders with mental illness in this reactive subgroup, who closely resembled Hiday's (17) hypothesized "character disorder" subgroup. Compared with the other four subgroups, the reactive subgroup had the highest proportion of recidivism (Table 4).

Given this overlap in distributions, interventions that have been shown to reduce recidivism for general offenders may generalize to many offenders with serious mental illness. Research indicates that the effec-

Table 4

Offenders returned to custody within 12 months, by typology and mental illness status

Offender type	With mental illness			Without mental illness			Total		
	Total N	N	%	Total N	N	%	Total N	N	%
Psychotic	6	1	17	0	0	0	6	1	17
Disadvantaged	2	0	—	4	0	—	6	0	—
Reactive	99 ^a	30	30	74	15	20	173	45	26
Instrumental	3	1	33	12	2	17	15	3	20
Gang or drug related	0	0	—	19	3	16	19	3	16

^a One participant was lost to follow-up.

tiveness of correctional interventions in reducing recidivism is maximized as programs increase the number of criminogenic needs that they target (that is, dynamic risk factors for recidivism, such as positive attitudes toward crime), relative to noncriminogenic needs (factors that impinge on psychosocial functioning, such as poor self-esteem) (26). Cognitive-behavioral correctional programs that target such criminogenic needs as impulsivity, emotional regulation, and criminal thinking may also meaningfully reduce recidivism risk for offenders with mental illness (27). Finally, intensive supervision and services may play a role in reducing risk for this population, particularly given suggestions that small caseload size and “firm but fair” relationships are key ingredients for specialty mental health probation (28). These policy-relevant questions await future research.

Conclusions

Like offenders without mental illness, offenders with a serious mental illness manifested heterogeneous patterns of offending that may stem from a variety of sources. For a small but important minority, psychiatric symptoms were a unique criminogenic need that were related directly to offending. For most offenders with serious mental illness, however, the focus on linkage with psychiatric services must be expanded to embrace individual criminogenic needs that are shared with offenders who do not have a mental illness. An expanded focus that leverages empirically validated correctional treatments may better reach the policy goal of reducing recidivism and promoting community reentry for this population.

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