Treating the Not Guilty by Reason of Insanity Outpatient: A Two-year Study

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Issues concerning the safety and effectiveness of treatment of not guilty by reason of insanity (NGRI) patients in the community have come under increased public scrutiny and professional discussion in recent years.[1] Despite the intensity of controversy in this area, few objective data exist relative to these concerns.[2] Thus, meaningful decisions regarding safe and effective treatment of the NGRI patient in the community are difficult to make in the absence of valid, empirically based data. The aim of this study was to address this limitation by presenting objective data as to the psychiatric and psychologic functioning of NGRI outpatients in response to treatment.

Although studies of institutional management of the NGRI hospitalized population are available, few published reports exist regarding the functioning of NGRI patients in court-ordered treatment within the community. One unpublished study (Lebow and Madden, personal communication, 1978) suggests that after an adequate course of hospitalization, a five-year intensive court-supervised outpatient treatment program for NGRI patients can be effective in reducing psychologic decompensation and criminal recidivism. Additionally, Silver[3] and Bloom *et al.*[4] have recently presented follow-up data for NGRI acquittees discharged into community treatment programs, which suggest that under such conditions, a substantial reduction in rearrest/recidivism rates may be possible. The major objective of the present study, therefore, was to evaluate more comprehensively the adequacy of psychologic adjustment of NGRI outpatients through repeated longitudinal assessments, utilizing standardized clinical interviews and a select battery of self-rating instruments.

Method

Subjects The patients were 44 NGRI acquittees receiving court-ordered treatment in an outpatient program for mentally disordered offenders.[5] Demographic and legal characteristics are shown in Table 1. The majority of patients were male, nonwhite, and presently or once married, with a mean age of 32. Charges on which patients were acquitted by reason of insanity were murder or attempted murder for 32 patients (80 percent),

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Table 1. Demographic and Legal Characteristics of Patients

Sex	N	%	Marital Status	N	%	Race	N	%	Crime	N	%	Age	N	%	Victim	N	%
M	28	64	Never married	19	43	White	17	39	Murder/attempted	35	80	20–25	11	25	Family	28	64
F	16	36	Ever married	25	57	Black	23	52	murder			26–30	15	34	Acquaintance	3	7
						Hispanic	4	9	Other	9	20	31–35	8	18	Stranger	10	23
												36–60	10	23	Property	3	7

while other charges (one or two subjects per charge) were attempted rape, aggravated battery, arson, armed robbery, assault, unlawful use of weapons, criminal damage to property, and theft.

All patients received a diagnostic evaluation based on administration of the full SADS-RDC[6] structured interview. Criteria for a primary diagnosis of a schizophrenic disorder were met by 18 patients (46 percent) and for affective disorder by 13 subjects (33 percent). Five patients (8 percent) had a diagnosis of organic brain disorder, while three (5 percent) had a personality disorder as the primary diagnosis.

Treatment Model The Isaac Ray Center is a university-based, specialized outpatient treatment center for mentally disordered offenders and is supported by a state grant. The majority of applicants are referred from state mental health centers where they had been committed following findings of NGRI and determined to need continuing treatment. As the state of Illinois has recently enacted legislation allowing for courts to mandate outpatient treatment directly,[7] some patients are referred directly after acquittal.[8] The center comprises a multidisciplinary staff and utilizes an eclectic model of therapy, tailoring type and level of intervention to individual patients' capacities, motivations, and needs. Thus, interventions may range from monitoring stability of community adjustment and arrangement of appropriate social services to in-depth individual psychotherapy. For those patients requiring neuroleptic medications, depot fluphenazine is often used when there is doubt as to a patient's ability or motivation to self-administer medication. A special characteristic of monitoring for this patient group is continual assessment of living circumstances in regard to their similarity to those conditions which existed at the time of prior decompensations and concomitant violent or other antisocial acts. Toward this end, family involvement is encouraged.

Court orders specify conditions of treatment, as recommended by the center. These always include a requirement to attend scheduled sessions, periodic status reports to the court, and notification of court and counsel if the order is violated. More specific stipulations are added on a per case basis, such as particular residential requirements (e.g., halfway house), acceptance of medication, and agreement to submit to laboratory tests and to refrain from alcohol or drug use. Violation of the court order can lead to rehospitalization (if due to mental illness) or legal sanctions for contempt of court. If rehospitalization proves necessary, agreements are maintained for state mental health centers to reaccept those patients which they originally discharged to the center.

The Isaac Ray Center reserves the right of acceptance and NGRI acquittees cannot be arbitrarily court-ordered to its program. Acceptance criteria are: (1) presence of a major mental disorder, either symptomatic or in

remission; (2) existence of community supports, which may include family or financial support, living arrangements, job or occupational training, and/or ancillary day treatment or supervised living programs; and (3) agreement by the patient to the requirements of the program, including full understanding of possible legal sanctions for noncompliance. Primary exclusion criteria are continued need for intensive, inpatient treatment and primary diagnosis of an antisocial personality disorder or drug abuse disorder. The NGRI outpatient population available at the time of this study comprised approximately 85 percent of all NGRI acquittees discharged into the community in the Cook County area, as estimated by the state director of forensic services.

Instruments Selection of protocols was designed to provide both self- and clinician ratings of psychopathology and adjustment over time, assessment of environmental stress, and measures of interpersonal needs. The SADS-C[9] structured interview (the "change form" of the SADS, designed to assess changes in major indicants of psychopathology over time) was administered by primary therapists and included a rating of general psychologic adjustment, the Global Assessment Scale (GAS).[10] Self-ratings of psychopathology were provided by means of the SCL-90 symptom checklist,[11] and the Holmes and Rahe psychosocial stress inventory[12] was used to provide a measure of cumulative life-stress events over the preceding 12 months. Finally, the Fundamental Interpersonal Relations Orientation-Behavior[13] (FIRO-B) test was utilized to provide a measure of interpersonal needs. The SCL-90, Holmes and Rahe, and FIRO-B were self-administered by means of an innovative, interactive computer assessment system described in detail elsewhere.[14] Additionally, the Shipley Institute of Living Scale[15] was given to each patient at time of entry into the study to provide an estimate of intelligence level.

Procedure The period of study was from July 1981 to June 1983, with 31 patients prospectively followed from the starting date and an additional 13 added during the first year (comprising new intakes and patients who had been hospitalized at the time the study was initiated). Since participation in the treatment program was mandatory, care was taken to explain to patients that participation in this study was strictly voluntary. Procedures for obtaining informed consent were approved by the university human investigations committee. Of forty-seven patients eligible for the study, three refused to participate. The SADS-C and SCL-90 were administered at five time periods, at four-month intervals during the first year and at three-month intervals during the second. The Holmes and Rahe inventory was administered upon entry into the study, and all patients completed the FIRO-B at the beginning of the second year. These two instruments were readministered at the final assessment period. Primary therapists were not

aware of the results of any assessments, except for the SADS-C that they administered, and their assessments were turned over immediately to a research assistant. The primary therapist had no further access to that data. Finally, data as to rehospitalizations, rearrests, and recidivism were collected for the full length of the study.

Results

During the two-year course of the study, no arrests for violent crime or other crimes against persons occurred. There was one instance of recidivism (shoplifting) and one conviction (contempt of court) for refusal to comply to specifications of a court order for treatment. Conversely, 11 patients (25 percent of the sample) were rehospitalized, with one patient rehospitalized twice. Average length of rehospitalization, excluding those patients still hospitalized at the conclusion of the study, was 39 days, and all of these patients were readmitted into outpatient treatment after being discharged.

No initial demographic, clinical, or psychometric measure was predictive of rehospitalization, including age, sex, race, diagnosis, and intelligence estimate (Shipley score). Primary therapists were interviewed as to reasons for rehospitalization. All rehospitalizations were attributed either to failure to take medication as prescribed or to initiation of alcohol or drug abuse. In both cases, primary dynamic factors were believed to be the patients' lack of insight regarding their psychiatric disorder and/or increased psychosocial stresses (e.g., family disruptions or job loss). Because these patients had a history of dangerous behavior, primary therapists very carefully monitored the patients' clinical course. Decisions to rehospitalize occurred when the primary therapist concluded that the patient met the state's standard for "need for hospitalization."[6] Evidence of decompensation, which was always precipitous, was in several instances first reported by family members.

Mean scores on self-rated symptomatology (SCL-90) and clinician-rated adjustment (GAS) showed a pattern of improvement across time, but no differences between consecutive assessment periods proved to be significant. The *t* tests were then computed, comparing psychiatric symptom ratings and overall adjustment scores between the beginning and end of the study, for all patients present at both the first and last assessment period (Table 2). Patients in this analysis showed a trend toward improvement in overall adjustment ($p = .06$). In addition to the assessment of the patients' overall functioning, subscales of specific symptoms were examined for both the SADS-C and SCL-90 (Table 2). Patients showed significant improvement ($p < .05$) in obsessive-compulsive and depressive symptoms on the SCL-90. All other scales also showed a decrease in self-reported symptomatology, although these differences did not achieve statistical significance.

Table 2. Changes in Rated Psychopathology from Initial to Final Assessment Periods for All Subjects Available at Both Time Periods*

Patient Self-rating (SCL-90)				Clinician-Rating (SADS-C)			
Subscale	Initial	Final	*t*	Subscale	Initial	Final	*t*
Depression	8.08	5.92	2.43†	Depression	1.59	1.48	3.71‡
Anxiety	3.67	3.08	0.63	Anxiety	1.55	1.40	1.06
Psychotic	4.88	3.54	1.33	Psychotic	1.64	1.38	1.27
Hostility	1.75	1.58	0.33	Aggression	1.96	1.83	0.79
Obsessive-compulsive	5.88	3.62	2.27†	Loss of interest	1.40	1.23	2.23†
Somatization	5.21	4.62	0.50	Mania	1.33	1.08	1.86
Sensitivity	5.42	4.54	0.94	GAS	62.61	71.56	2.01§
Phobic anxiety	1.67	1.50	0.37				
Paranoid	4.79	3.46	1.25				
Overall score	41.33	31.88	1.50				

* Lower scores indicate decreased psychopathology except for the GAS (N = 24).
† $p < 0.05$.
‡ $p < 0.01$.
§ $p = 0.06$.

Subscales for the SADS-C were constructed on the basis of grouping items by content, as previously used by Rogers *et al.*[16] Patients showed significant improvement in depression ($p < .01$) and pervasive loss of interest ($p < .05$) and, again, all measures changed in the direction of decreased psychopathology (Table 2). In general, patients consistently showed stability or improvement, with greater improvement in primary therapists' ratings of adaptive functioning than in patients' self-ratings of symptoms. Both clinicians and patients agreed that a significant decrease in depression occurred across the time period of the study.

Because the data for Table 2 did not include any patients hospitalized at the time of any particular assessment period, it could be argued that the pattern of stable to improved functioning could be artifactual, i.e., due to the systematic exclusion of more decompensated (rehospitalized) patients. For this reason, the above analyses were recomputed for only those patients available at the first and last assessment periods who were never rehospitalized at any time during the study ($n = 20$). Results for this group (Table 3) appear to be highly similar to those reported for all patients (Table 2). Of the clinical features previously showing significant change, only pervasive loss of interest failed to reach significance, while 14 symptoms changed in the direction of improvement. Of the three symptom categories that did not show improvement, none showed a statistically significant increase in self-rated psychopathology.

The sample as a whole showed a significant decrease in stressful life changes on the Holmes and Rahe inventory ($p < .05$). The sample was characterized by a greater need to include others than to be included and a greater need to be controlled than to control others, as indexed by the FIRO-B. Patients showed a decrease in the intensity of each measured need

Table 3. Changes in Rated Psychopathology from Initial to Final Assessment Periods for Patients Never Rehospitalized*

Patient Self-rating (SCL-90)				Clinician-Rating (SADS-C)			
Subscale	Initial	Final	*t*	Subscale	Initial	Final	*t*
Depression	9.23	6.90	2.44†	Depression	1.90	1.49	3.13‡
Anxiety	3.68	3.73	0.62	Anxiety	1.62	1.41	0.87
Psychotic	5.59	3.87	1.00	Psychotic	1.50	1.23	1.04
Hostility	1.91	1.57	0.51	Aggression	2.05	1.73	1.02
Obsessive-compulsive	6.77	4.50	2.26†	Loss of interest	1.36	1.22	1.45
Somatization	6.32	4.70	1.25	Mania	1.19	1.14	1.16
Sensitivity	5.41	5.50	0.67	GAS	64.50	73.90	2.07§
Phobic anxiety	1.82	2.07	0.21				
Paranoid	4.55	3.40	0.23				
Overall score	45.28	36.24	1.16				

* Lower scores indicate decreased psychopathology except for the GAS (N = 20).
† $p < 0.05$.
‡ $p < 0.01$.
§ $p = 0.06$.

(expressed or wanted inclusion, control, and affection) from first to second administration, although this was significant only for the need to be controlled ($p < .05$).

Discussion

The data indicate that safe, effective treatment of the NGRI outpatient is possible. First, it is essential to emphasize that from the standpoint of public safety, the program was successful for the time period studied. No serious crime was committed by this patient sample over the two-year period. In comparison to present findings, existing studies of NGRI acquittees discharged into the community, but not followed on an outpatient basis, have shown rearrests for the first three years following discharge, ranging from 15 to 37 percent.[17] A rehospitalization rate of 25 percent per year in the present study appears to be reasonable and consistent, given the type and severity of diagnoses in the sample studied.[18,19] Since all patients were adjudicated as having committed crimes while mentally disordered, timely rehospitalization may be considered as an appropriate strategy for maintaining NGRI patients in the community. Additionally, rehospitalizations tended to be brief, with the 39-day mean length of stay probably being an overestimation of length of required inpatient treatment, since it includes time involved in arranging statutorily required court discharge hearings.

Lack of recidivism does not necessarily differentiate the present sample from nondisordered ex-offenders. Murder, for example, most often involves a family member or other known victim and is not repeated. The present sample does, however, constitute the types of individuals for whom society

has heightened concerns as to dangerousness, whether or not deserved. The vast majority of patients had a major psychiatric disorder and had committed murder. The value of the present study, therefore, lies in its empirical demonstration that this concern may not be warranted, under the conditions of selection and treatment described.

The infrequency of rearrests (two) precluded the possibility of evaluating factors (e.g., diagnostic, demographic) which may be related to recidivism. The two individuals rearrested differed on almost every clinical and descriptive factor examined: age, race, sex, diagnosis (schizophrenic versus affective), and previous crime (violent versus property).

Several of the clinical features measured by the SCL-90 and SADS-C subscales showed statistically significant improvement. The significant changes over time occurred in those subscales shown in previous research to be most sensitive to pharmacologic and setting variables associated with positive treatment effects.[20] Also, consistency of improvement on measures of environmental stress experiences, as well as self- and clinician ratings of psychopathology, was observed in a relatively seriously mentally ill patient sample. Psychometric testing (MMPI), which was a part of the center's standard intake procedure, showed no evidence that the current sample minimized psychopathology (i.e., did not show excessive elevations on L or K scales).

Specific characteristics of improvement that led to better general adjustment (GAS) were varied and included such landmarks as completion of occupational or educational training (e.g., graduate equivalency degree), successful change to independent living, development of fulfilling intimate relationships, and decrease in psychiatric symptomatology. One type of improvement of particular importance, in terms of long-term expectations for viability in the community, was the development of the patients' realization that they have a mental disorder and need medication. This was generally accompanied by increased awareness of those symptoms or warning signs that may point to a need for modification or reinitiation of antipsychotic agents. The problem area that proved to be least amenable to treatment was alcohol or drug abuse, which, as stated earlier, was a significant factor in rehospitalization.

Inferences regarding changes in patients' interpersonal needs can only be speculative, given controversies as to the external validity of the FIRO-B.[21] The possibility is suggested that the significant decrease in need to be controlled may reflect a decrease in passivity associated with past institutionalization. Such an inference would, of course, require further exploration, but serves to accentuate the importance of assessing interpersonal functioning in any comprehensive assessment of community adaptation.

At present, there are only three established programs in the United States

which specialize in the community treatment of mentally disordered offenders.[22] The diversity of judicial-legal and public policy considerations affecting NGRI acquittees in different localities presently limits outcome research methodology to naturalistic studies of select groups. Such methodology does not allow discrimination of judicial and clinical discharge considerations from the roles of specific therapeutic or management factors in accounting for safe or successful community adjustment. The present study does show that a carefully administered and closely supervised outpatient treatment program for NGRI patients may be a viable and preferable alternative either to prolonged institutionalization or to unconditional, unsupervised discharge. Data from this study indicate that outpatient treatment was associated with stability or improvement in psychologic functioning in a manner consistent with public safety concerns.

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