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Adjustment of the Not Guilty by Reason of Insanity (NGRI) Outpatient: An Initial Report

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ABSTRACT: Adjustment to outpatient treatment of not guilty by reason of insanity (NGRI) patients following discharge from inpatient settings was explored by following 44 subjects in a 2-year, longitudinal study. Data obtained for each subject included demographic characteristics, Schedule for Affective Disorders and Schizophrenia-Research Diagnostic Criteria (SADS-RDC) diagnosis, and Minnesota Multiphasic Personality Inventory (MMPI). Repeated measures included the Schedule for Affective Disorders and Schizophrenia-Change Form (SADS-C), Symptom Checklist 90 (SCL-90), and Holmes & Rahe Inventory. No recidivism occurred for any crime against persons, 25% of subjects were rehospitalized, and those subjects remaining in outpatient treatment showed a general pattern of stable to modestly improving functioning. Implications for safe and effective community treatment of NGRI acquittees are discussed.

KEYWORDS: psychiatry, not guilty by reason of insanity, demography, treatment

A major issue in the field of forensic mental health is the assessment and treatment of the mentally disordered offender [*1*]. The potential for "dangerousness" of persons found not guilty by reason of insanity (NGRI), for example, has aroused much debate in clinical and legal circles [*2,3*], and intense feelings in the community at large [*4,5*]. A principal concern has been the likelihood of violent criminal recidivism when the NGRI acquittee, who may have committed a violent offense or have suffered a major mental illness or both, is discharged back into the community. To address this concern, research must examine what circumstances are likely to contribute to potential for violence in this special patient population, and whether procedures can be utilized that could reduce the likelihood of future dangerous or other antisocial behavior.

Existing studies following NGRI acquittees in the community have been limited to circumscribed samples. The most extensive single study is that of Steadman [*6*] which examined demographic and social characteristics as well as re-arrest rates of discharged NGRI acquittees over a ten-year period in New York State. This and other studies of more limited NGRI samples [*7,8*], have found NGRI re-arrests between 23 and 37% and psychiatric rehospitalizations of 22%. Because different studies have involved specific jurisdictions with differing legal standards and policies, data as to re-arrest, recidivism, and rehospitalization vary widely among studies [*9*]. Additionally, re-arrest and rehospitalization data have in the past been gathered for NGRI acquittees, the majority of whom were not monitored or being treated following discharge.

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Recently, however, two studies have been described that may suggest that under continued supervision, potential for further dangerous/antisocial behavior might be reduced. Silver [*10*] has reported preliminary findings of a followup of 65 NGRI acquittees in court-mandated outpatient treatment, showing 24% re-arrested and 11% rehospitalized. In comparison, Bloom et al [*11*] found 5% re-arrested and 32% rehospitalized (for clinical reasons or violation of court order) of those NGRI acquittees discharged under the supervision of Oregon's Psychiatric Security Review Board. The present study was undertaken to further examine the following questions: (1) how likely are NGRI acquittees to engage in further dangerous or antisocial behavior in the community when carefully selected for and monitored in a specifically designed outpatient program? and (2) what characteristics and clinical indices are associated with safe community adjustment?

The present study followed the majority (approximately 85%, as estimated by the state coordinator of forensic services) of NGRI acquittees discharged to outpatient treatment in Cook County, IL over a two-year period (July 1981 to June 1983). All were court ordered to a specialized forensic outpatient treatment program [*12*] that emphasized close monitoring, as well as provided psychotherapy and medication when clinically indicated. Data were obtained as to demographic, legal, and initial clinical characteristics, as well as clinical measures described below. Additionally, records were maintained as to re-arrests, criminal recidivism, and rehospitalization over the two-year period.

Method

The sample consisted of all NGRI outpatients at the Isaac Ray Center, Chicago, who were in treatment at the initiation of or who were accepted into treatment during the first year of the study. This resulted in 31 subjects for the first year and an additional 13 for the second, resulting in a total *N* of 44 (3 additional patients refused to participate). The initial 31 subjects had been in outpatient treatment for up to 2½ years, during which there was one instance of recidivism for a minor property crime, and an approximately 25% rehospitalization rate per year. At the beginning of the study, or upon entry, all subjects were administered the Minnesota Multiphasic Personality Inventory (MMPI) [*13*], a comprehensive, self-administered objective personality test providing profiles of psychological functioning and psychopathology; and the Holmes and Rahe [*14*] Scale of Psychosocial Stress, an inventory of stressful events or life changes in the preceeding twelve-month period. Additionally, repeated measures were obtained at five consecutive time points, at four-month intervals during the first year and at three-month intervals during the second year for a total assessment period of nineteen months. These were the Schedule for Affective Disorders and Schizophrenia-Change Form (SADS-C) [*15*], a brief structured interview assessing changes in major diagnostic symptoms and administered by the primary therapist, which includes a 99-point General Assessment Scale (GAS); and the Symptom Checklist 90 (SCL-90) [*16*], a brief self-report symptom checklist providing a profile of the subject's perception of his/her psychological functioning.

During the second year, the full Schedule for Affective Disorders and Schizophrenia (SADS) [*17*] was given to all subjects by a trained research associate. The SADS is a comprehensive, semi-structured diagnostic interview employed in conjunction with the Research Diagnostic Criteria (RDC) [*18*] of mental disorders, and in this study was used to provide diagnoses for each subject at time of testing and, retrospectively, at time of the offense for which acquitted. The MMPI, Holmes and Rahe, and SCL-90 were all administered by means of an innovative, interactive, computerized assessment system more fully described elsewhere [*19*].

Instruments were chosen to provide an initial psychometric measure of psychopathology (MMPI), longitudinal assessment of self-rated (SCL-90) and clinician-rated (SADS-C) psychopathology and adjustment, and changes in environmental stress over time (Holmes & Rahe), as well as a comprehensive diagnostic evaluation consistent with *Diagnostic and Statistical Manual*, 3rd ed. (DSM-III) criteria (SADS). Primary therapists did not administer any of

these instruments and were not informed of any scores, except for the SADS-C. In the latter case, rating protocols were immediately turned over to the research associate after administration, and were no longer accessed by primary therapists during the course of the study.

Results

Demographic data are presented in Table 1. The majority of the sample were male, nonwhite, had a mean age of 32, and were presently or once married. As to crime for which acquitted, the majority had committed murder or attempted murder, with the victim(s) being a family member or someone known to the subject. Diagnoses based on the full SADS-RDC interview were obtained for 39 subjects available at the time of this assessment. Retrospective assessments (see Table 2) showed that 79% demonstrated criteria for primary diagnosis of active major mental disorder (schizophrenic or affective) at time of crime, while the remainder were divided between organic and personality disorders. At time of SADS testing, approximately one half of those originally manifesting major mental disorder were in some degree of remission, while no subject showed a change in primary diagnostic category.

Psychometric test data (MMPI) were obtained for 40 subjects. Three of the profiles were conservatively classified as invalid on the basis of *F*-scale *T*-scores of 90 or above, utilizing Greene's [*20*] recomputation of *T*-score values for this scale. Of the remaining 37 profiles, 22% had no clinical scales (including Mf and Sie) in the diagnostic range (*T*-score 70 or above), while over half (57%) had at least two and over one third (38%) at least three scales in the diagnostic range. The scale most frequently in the pathological range was Pd which primarily assesses authority conflict and antisocial attitudes (see Fig. 1). Next most frequent clinical scale elevations were on Pt (symptoms of anxiety disorders), D (depressive features), Sc (thought disorder, disorganization), and F (admission of unusual experiences). Least frequent elevations were on scales assessing somatic preoccupations (Hs), suspiciousness (Pa), hypomanic features (Ma), somatization (Hy), and defensiveness (L and K), as well as on the two nonclinical scales measuring traditional sex-role orientation (Mf) and introversion/extroversion (Sie).

No re-arrest for violent crime or crime against persons occurred during the two-year study period. One arrest for a misdemeanor did occur (shoplifting) during a transient psychotic episode, and there was no conviction. Also, one subject was found in contempt of court for refusal to comply with his court order for outpatient treatment. Thus, for the two years of the study, there was no recidivism for violent crime and 4.6% total recidivism consisting of two minor, nondangerous offenses.

Rehospitalizations occurred for seven subjects during the first year of the study and four additional subjects during the second year, resulting in a cumulative proportion rehospitalized of 25% (one subject was rehospitalized twice). Demographic variables (age, race, sex, and

TABLE 1—*Demographic characteristics.*

	N	%		*N*	%
SEX			MARITAL STATUS		
Male	28	64	Never married	19	43
Female	16	36	Ever married	25	57
RACE			VICTIM OF CRIME		
White	17	39	Family	28	64
Black	23	52	Non-family	13	29
Hispanic	4	9	Property	3	7
AGE			CRIME		
20-25	11	25	Murder/att.	35	80
26-30	15	34	Other	9	20
31-35	8	18			
36-60	10	23			

TABLE 2—*SADS-RDC diagnoses: at time of crime and at time of evaluation.*[a]

Diagnosis	Time of Crime	Present	Percent
Schizophrenic disorder			
Active	18	8	...
In remission	0	10	...
Total			46
Affective disorder			
Active	13	7	...
In remission	0	6	...
Total			33
Organic mental disorder	5	5	13
Personality disorder	3	3	8

[a]$N = 39$.

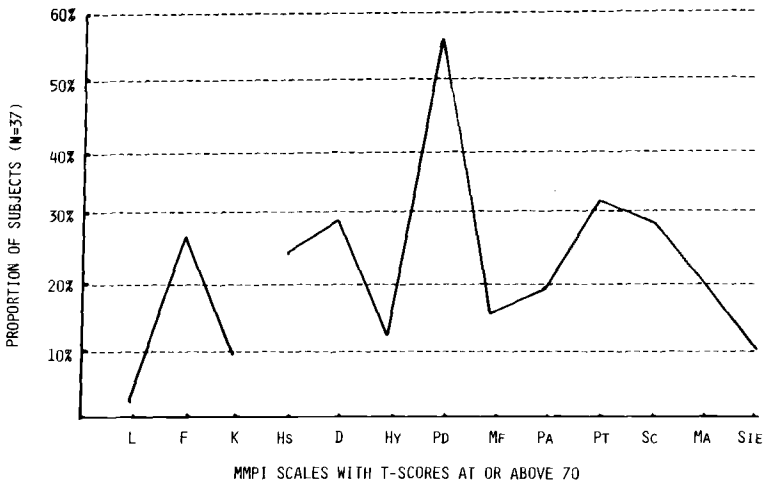

FIG. 1—*Proportion of subjects with specific MMPI scales in the diagnostic range (*T − *scores* ≥ *70).*

marital status) and prior history variables (number of previous hospitalizations and total time hospitalized—before and after the crime) were not individually predictive of rehospitalization. The variable most closely approaching significance was total time hospitalized before the offense ($p = 0.10$). Possible predictive use of combinations of these variables could not be adequately assessed because of sample size.

Pair-wise relationships were examined between present diagnosis (schizophrenic or affective), crime (murder/attempt-murder or other), victim (family, known to subject, stranger), and rehospitalization (yes, no). Although none of these comparisons proved significant, of those subjects acquitted of murder or attempted murder, 7 out of 35 were rehospitalized (20%), while of those acquitted of other crimes, 4 out of 9 (44.4%) were rehospitalized (Fisher's exact test, $p = 0.11$).

Measures of clinical adjustment over time showed modest gradual improvement. Figure 2 shows mean SCL-90 and GAS ratings for each of the five consecutive assessment periods. For those subjects available at both first and fifth assessment periods ($N = 24$), paired-comparison t tests showed a trend toward improvement on the GAS ($p = 0.06$) while the SCL-90 comparison was not significant. Both mean and final GAS scores were also significantly correlated with rehospitalization (mean GAS point biserial $r = -0.38$, $p = 0.012$; final GAS $r = -0.43$,

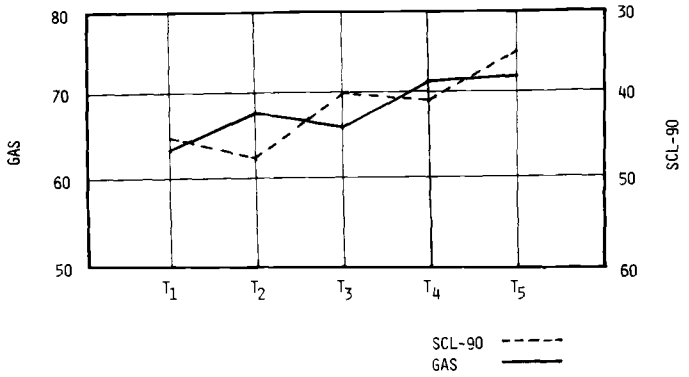

FIG. 2—*Global adjustment and symptom checklist mean scores across five consecutive assessment periods. Higher elevations indicate lower severity of psychopathology (SCL-90) or better rated adjustments (GAS).*

$p = 0.004$). To examine the possibility that selective exclusion of rehospitalized subjects from assessment periods for which they were unavailable because of hospitalization may have accounted for the trend toward improvement, the above t tests were recalculated for subjects never rehospitalized. The resulting significance levels were substantially the same. The environmental stress measure (Holmes & Rahe) showed a significant decrease in life-stress experiences between first and last administrations ($t = 2.04$, degrees of freedom (df) = 22, $p = 0.05$).

For the MMPI, individual scales were not found to be predictive of rehospitalization and did not significantly differentiate schizophrenic from affective groups (remaining diagnostic groups were too small for meaningful comparison). The MMPI was, however, related to mean clinician-ratings of psychological adjustment (GAS) over time. MMPI profiles of the highest versus lowest third ($N = 15$ per group) of subjects on mean GAS ratings were compared (see Fig. 3), and all mean scale scores were lower for the better adjusted group, with two scales (Mf, Pt) significant at $p < 0.05$ and two (F, Sc) showing trends at $p < 0.10$. It should be noted that MMPIs were administered at time of entry into the study, while GAS ratings in this comparison were averaged across the five or fewer assessment periods per subject.

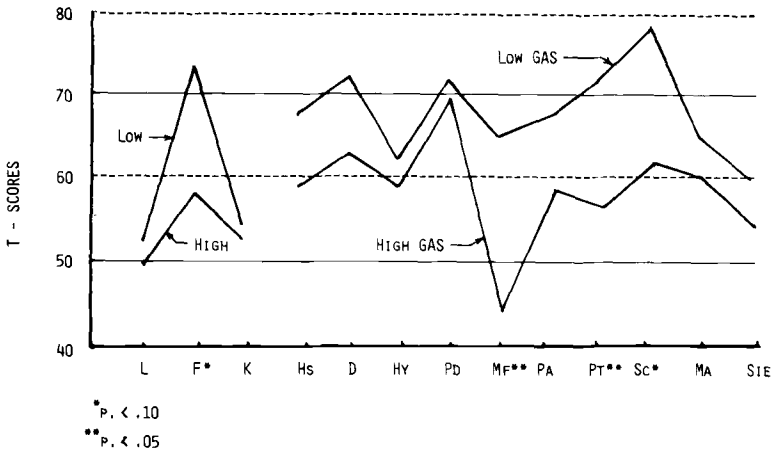

FIG. 3—*MMPI profiles for highest versus lowest one third of subjects on final (T_5) administration of the GAS. Significant differences between groups for individual scales are indicated.*

Discussion

Demographic, legal, and diagnostic characteristics of the present sample may to some extent reflect acceptance criteria for outpatient treatment, which specifically included individuals with treatable major mental disorders, and excluded individuals primarily diagnosed with personality disorders who showed minimal motivation or were antagonistic to community monitoring. Despite these restrictions, the sample was comprised primarily of individuals who had committed violent crimes against persons, met diagnostic criteria for major mental disorders, and, on psychometric testing, showed prevalence of personality disorder or antisocial traits or both.

Recidivism and re-arrests were much lower than proportions reported in prior studies. Again, selection criteria must be considered when assessing factors to account for these differences. Also, close monitoring allowed for timely rehospitalization which had the intent of preventing or alleviating those psychopathological or environmental conditions under which prior violent or other criminal acts occurred. Failure to comply with medication requirements was a major contributing factor to rehospitalization. It could thus be argued that a substantial proportion of rehospitalizations may constitute a necessary aspect of effective outpatient treatment for this special patient group.

No initial clinical, legal, or demographic variable was found to be predictive of rehospitalization, but repeated clinician ratings of global adjustment were significantly correlated with rehospitalizations. Since primary therapists conducted this latter assessment (GAS), the possibility exists that this may have influenced decisions whether or not to rehospitalize. This is unlikely however, since most rehospitalizations followed precipitous exacerbations of psychopathology, and the majority of rehospitalizations occurred during the three- or four-month interval following the last assessments obtained. Thus the findings that repeated clinical ratings were correlated with rehospitalization support the conclusion that close, continued monitoring is of particular importance in assuring adequate community management.

Even though there were no instances of violent recidivism, 57% of subjects with valid MMPI profiles showed scores on the Pd ("Psychopathic Deviate") scale in the diagnostic range. This may indicate a prevalence of characteristics of antisocial personality, other psychopathology manifested in terms of socio-legal impairment, and/or may reflect the fact that several Pd-scale items would be answered in the "pathological" direction by anyone who has had criminal involvement (for example, "I have never been in conflict with the law."). In any regard, this scale (as well as all other individual MMPI scales) was *not* found to be useful in anticipating likelihood of future antisocial behavior, and therefore was not established as a useful marker for appropriateness for community treatment. Infrequency of elevations on scales sensitive to defensiveness or denial (L, K, Hs, Hy), additionally indicates that most subjects were not attempting to minimize psychopathology or maladjustment.

Psychometric testing may, however, be useful in assessing expected general level of adjustment, and thus may be of aid in decision-making as to level of required monitoring and advisability of enlisting additional support systems to insure stable community functioning. Additionally, for the present sample, seriousness of crime (defined by lethality or potential lethality) was negatively related to rehospitalization. This finding runs contrary to a prevalent assumption, described by Monahan [*21*], among mental health professionals working with mentally disordered offenders, equating seriousness of offense with seriousness of disorder.

Across the period of this study, all measures of adjustment (clinician and self-ratings, and measures of psychosocial stress) were consistent in showing stable to modestly improving psychological functioning for those subjects remaining in outpatient treatment. Generalizations cannot be offered on the basis of a limited, specially selected sample in a particular jurisdiction. The study does show that this particular group of patients predominantly characterized by past dangerous behavior and major mental disorder, can be managed safely and stably in the community, with re-arrests and recidivism substantially below those found for nonsupervised, discharged NGRI acquittees. Only three community-based programs specifically

designed for disordered offenders presently exist in the United States [*1*]. It is only with the development of additional such programs that the issue of safe management can be more fully investigated.

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