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Quality of Care and Use of Less Restrictive Alternatives in the Psychiatric Emergency Service

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Objective: **The study examined factors affecting clinicians' decisions in the psychiatric emergency service about referring patients to less restrictive alternatives to inpatient care. Indicators of quality of care and the severity of the patient's condition were a particular focus.** ***Methods:*** **Trained mental health professionals observed the evaluations of 425 patients in seven California county general hospitals. Multivariate modeling was used to examine variables thought to predict disposition to alternative care.** ***Results:*** **Less restrictive alternatives were available for 61 percent of the 425 patients and were used for 39 percent; they were overlooked by clinicians in 14 percent of cases and considered but not used in 8 percent. Patients' need for a controlled hospital setting, as indicated by the severity of their condition, was most important in determining use of hospital alternatives. Quality of care, especially the clinician's ability to engage patients in treatment at a level appropriate to their functioning, was also a significant predictor of whether alternative care was considered or used.** ***Conclusions:*** **Under managed care, clinicians are under extreme economic pressure to use less restrictive alternatives, thereby reducing costly inpatient care. To ensure quality of care in general hospital emergency services, the development of supervised hospital alternatives is crucial. Clinicians should be encouraged to engage patients in treatment if appropriate use of alternative care is a goal. (*Psychiatric Services* 47:623–627, 1996)**

In the provision of mental health services, the primary method used by managed care organizations to make a profit is to limit use of costly services such as inpatient care (1–3). To address serious concerns about deterioration in the quality of care under managed care (4), it is important to better understand how clinical decisions about providing extensive and expensive services such as inpatient hospitalization are made.

Perhaps the point in the system where the need to understand clinical decision making is greatest is in psychiatric emergency services of general hospitals. This service is where most civil commitment evaluations are made and thus where many inpatient stays are approved.

Although state requirements for civil commitment may differ, laws on commitment are now usually qualified by the phrase "in the absence of a less restrictive alternative" (5). Thus the Lanterman-Petris-Short Act in California permits an individual to be detained involuntarily in a hospital if he or she is considered a danger to self or others or is gravely disabled because of a mental disorder and if no less restrictive alternative is available.

This language is similar to that in well-known legal cases, such as *Lake v. Cameron* (6) and *Lessard v. Schmidt* (7), which required the state to show that alternatives to involuntary full-time hospital commitment were not suitable. Central to such cases is the doctrine that the state's police power may be appropriately restricted when the same basic purpose can be accomplished with fewer deprivations imposed on the individual. In fact, national policy that applies to both involuntary and voluntary patients encourages the use of less restrictive alternatives to psychiatric hospitalization (8).

The use of less restrictive alternatives is not an issue in the emergency service when no alternative care settings exist or when hospital policy or limited resources dictate against hospital admission and all patients are discharged to community treatment. However, in general hospital emergency services in large urban settings, the clinician's consideration of less restrictive alternatives during patient evaluations is open to multiple influences that are constantly changing.

Little empirical research has been done on how clinical decision making during the evaluation process in the psychiatric emergency service is related to policies and laws about less restrictive alternatives (9). Various alternatives to hospitalization have

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been shown to have therapeutically desirable effects (10–12). In general, studies indicate that clinical determinants predominate over social and demographic factors in decisions to hospitalize persons with psychiatric disorders (13,14). However, these studies did not examine the process involved in deciding whether to admit a patient to a hospital or use a less restrictive alternative.

Studies that have addressed such decision making in the emergency service show that the use of less restrictive alternatives for psychiatric care depends on a patient's need for a controlled setting as indicated by the severity of the patient's condition (15–17). However, these studies used models that were too restrictive. In the study reported here, we move beyond the issue of severity of illness and focus as well on clinical assessment and the importance of quality of care, institutional constraints, and social biases inherent in the evaluation process (18).

Given the legal mandate for use of less restrictive alternatives and the positive outcomes demonstrated in these settings, clinicians' consideration of the use of alternatives is a quality-of-care issue. In our study we examined the relationships between quality of care, patients' needs, and the use of less restrictive alternatives. We looked at several factors that may influence emergency service clinicians' decisions about whether to refer patients to alternative settings. We hypothesized that when good-quality care is provided, less restrictive alternatives are more likely to be used when the patient's condition permits and when other setting characteristics are taken into account.

Methods

Sample

Data on 425 patients who visited the psychiatric emergency services of seven California county general hospitals between 1985 and 1986 were collected. An incoming patient was included in the sample if both an independent observer and a staff clinician were available for the patient's evaluation. The patients included in the sample were assessed at various times of the day, around the clock, and an approximately equal number of observations were made in each facility.

Data were from independent observation of psychiatric evaluations, patients' records, and emergency service clinicians' responses to a brief questionnaire. Mental health professionals experienced in assessing severely mentally ill patients were employed to observe evaluations made by emergency service clinicians. These observers had access to all conversations, record reviews, telephone conversations, and other procedures conducted during patient evaluations. They were trained to use structured instruments for observation and chart review and to take careful process notes during the evaluation.

Measures

Less restrictive alternatives. For purposes of the study, less restrictive alternatives were any supervised residential placement, including placement with a willing and responsible relative, crisis housing, halfway houses, board-and-care homes, nursing homes, and foster family care. Three measures of the use of such alternatives were employed.

The first measure assessed whether a less restrictive alternative was available (coded 1=available, 0=unavailable). An alternative was judged to be available when there was no evidence indicating it was not a feasible placement for the patient. An alternative was judged to be unavailable for many reasons, such as lack of beds, financing, or controls appropriate to the patient's condition. Interevaluator agreement on this measure was 80 percent.

Two other measures of less restrictive alternatives were used. Each patient evaluation was coded based on whether an alternative was used (1=used, 0=not used) and whether use of an alternative was overlooked by the clinician in the evaluation process (1=yes, 0=no). In both cases, a code of 1 was contingent on the availability of an alternative setting. A clinician was judged to have overlooked a less restrictive alternative only when it was clear that such a placement was appropriate and that the clinician made no effort to find an alternative to hospitalization and did not encourage the patient to suggest one. Interevaluator agreement was 85 percent for use of a less restrictive alternative and 90 percent for overlooking one.

Observers completed process recordings of the entire evaluation and summaries of relevant material from the patient's record; they also responded in their process notes to pre-established queries about how decisions about the use of less restrictive alternatives were made. The queries required the observer to record all information about the availability and use of less restrictive alternatives, including whether the clinician overlooked these alternatives. Coding of the three measures of less restrictive alternatives was based on the information gathered by the observers and was done by independent evaluators using algorithms.

Predictors of the use of less restrictive alternatives. Quality of care, which was hypothesized to predict the use of less restrictive alternatives, was measured from three perspectives—the patient's, the clinician's, and the hospital administration's.

The Art of Care Scale addresses the patient's perspective (18). It consists of four items measuring the clinician's attempt to engage the patient in a collaborative interaction, elicit information, include the patient in planning at a level appropriate to the patient's functioning, and attend and respond empathically to the patient's feelings.

The Technical Quality of Care Scale, which examines quality from the provider's perspective, is an additive index of 27 items that measure conformity to professional standards of practice in the psychiatric emergency service (19,20). The items were selected and weighted by independent panels of psychiatrists, with a high level of agreement (r=.89)

The hospital administration's perspective on quality of care is based on the efficient or optimum investment of time in completing the clinical tasks necessary for an evaluation. The optimum time measure used was the difference between the actual time spent on the evaluation and the estimated time necessary for a high-quality evaluation (18). A negative score on this measure indicated that time was conserved at the expense of quality; a pos-

itive score indicated that more time was spent than was required.

The severity of the patient's condition was also considered a predictor of the use of less restrictive alternatives. We chose four admission criteria as indicators of severity. Because most patients were involuntary, the criteria were consistent with indicators of need for a controlled hospital setting as reflected in current and proposed legal requirements for commitment. The first criterion was a *DSM-III* diagnosis of a psychotic disorder assigned by the emergency service clinician. The second was the Treatability Scale score (21); the scale indicates whether the clinician views the patient's psychiatric disorder as treatable.

A third measure of illness severity, the Benefit From Hospitalization Scale, examines the patient's ability to benefit from inpatient care (21). Finally, the Three Ratings of Involuntary Admissibility Scale was used to measure dangerousness to self or others and grave disability at the time of the evaluation (21).

Institutional constraints that might have contributed to whether a clinician considered the use of a less restrictive alternative were also assessed (18). These constraints included the clinician's workload, which was measured by a three-item factor score based on the patient-staff ratio, the clinician's patient load, and the total number of available inpatient beds; difficulties in the physical setting of the emergency service; whether the clinician's ethnicity matched the patient's; whether the clinician spoke the same language as the patient; whether the patient had insurance coverage; and the clinician's years of experience.

Social bias indicators that might have influenced a clinician's decision about using a less restrictive alternative were also considered (18). Patients' demographic characteristics—age, gender, and ethnicity—that might have caused prejudice or discrimination were examined, as were factors likely to incite negative community reaction if disposition of the case was later questioned. These factors included the degree to which the patient had been a nuisance in the community, whether the patient was referred by the police, and whether the patient had no place to go.

Another measure of social bias was the observer's rating of the clinician's attitude, including whether the clinician liked or disliked the patient and whether the assessment was affected by the clinician's preconceptions about the patient, for example, whether the clinician viewed the patient as cooperative, engaged, or "good." Attitudinal assessments were based on direct verbalizations and other actions of the clinician during the evaluation.

Finally, among these variables we considered the number of previous psychiatric hospitalizations as an indicator of presumed chronicity.

Analyses

Univariate analyses were conducted on all variables predicting whether less restrictive alternatives were used or overlooked. Group differences were evaluated using t tests and chi square analyses. In conducting the t tests, separate variance estimates were used when F test values for the homogeneity of variances were significant. Otherwise pooled variance estimates were used.

Two simultaneous logistic regression models were also examined to determine the relative importance of indicators of the quality of care and the severity of the patient's condition in dispositions to less restrictive alternatives. Institutional constraints and social biases affecting clinicians' decisions were taken into account in the multivariate models.

Results

Patient characteristics

The demographic characteristics of the 425 patients in the sample were those of a marginal group, one at high risk of involvement with systems of mental health and health care, social services, and law enforcement. More than half of the patients were male (58.8 percent). The mean age was 34.6 years. Sixteen percent were African American, and the rest were from other racial or ethnic groups. Most patients had previous hospitalizations (mean number of hospitalizations=4.4).

Characteristics of clinicians and evaluations

Most of the 425 evaluations were conducted by psychiatrists or other physicians (54 percent); evaluations were also done by registered nurses (11 percent), licensed psychiatric technicians (10 percent), master's-level psychologists (9 percent), social workers (9 percent), doctoral-level psychologists (4 percent), trainees (2 percent), and persons with other credentials (1 percent). In most cases, a psychiatrist was available for consultation to nonpsychiatrist evaluators.

The mean±SD number of years of clinical experience of the evaluators was 10.73±11.01 (median=seven years). They had 5.73±5.19 years of experience (median=five years) in admitting patients to a hospital and 5.45±5.03 years of experience in the psychiatric emergency service.

Actual time for evaluations ranged from 15 minutes to eight hours (some patients were held for observation) (mean±SD=1.53±1.23 hours; median=1.25 hours).

Less restrictive alternatives

Less restrictive alternatives were available in 61 percent of the evaluations, used in 39 percent, and overlooked in 14 percent. In 8 percent of the cases, available alternatives were considered but not used.

Univariate analyses. Among institutional constraints, only the difficulty of the physical setting was found to be significantly related to the use of and tendency to overlook less restrictive alternatives. Settings that had more noise, limited office space, limited phone access, visually distracting stimuli, and other such disturbances during the evaluation were significantly associated with reduced use of less restrictive alternatives ($t=2.82$, $df=422$, $p=.005$) and with clinicians' overlooking available alternatives ($t=2.36$, $df=116$, $p=.02$).

Among social bias indicators, two were associated with an increased probability that a less restrictive alternative would be used: the clinician's liking of the patient ($t=2.62$, $df=311$, $p=.009$) and positive preconceptions about the case ($\chi^2=7.37$, $df=1$, $p=.007$). Alternatively, three social bias indicators were associated with a de-

Table 1

Two logistic regression models of factors affecting decisions about use of less restrictive alternatives during 425 patient evaluations conducted in psychiatric emergency services at seven California general hospitals[1]

Variables[2]	Less restrictive alternative used			Less restrictive alternative overlooked		
	b	Exp(b)	p	b	Exp(b)	p
Quality of care indicators						
Art of Care Scale	1.26	3.54	.02	−2.32	.10	<.01
Technical Quality of Care Scale	−1.54	.21	.01	ns	ns	ns
Optimum time for evaluation	ns	ns	ns	ns	ns	ns
Indicators of severity of patient's condition						
Benefit From Hospitalization Scale	−3.12	.04	<.01	ns	ns	ns
Treatability Scale	ns	ns	ns	ns	ns	ns
Three Ratings of Involuntary Admissibility Scale[3]	−.50	.61	<.01	ns	ns	ns
Diagnosis of psychotic disorder	−1.46	.23	<.01	ns	ns	ns

[1] Percentage of case dispositions correctly predicted: less restrictive alternative used, 84.7 percent; less restrictive alternative overlooked, 89.1; model χ^2=262.77, p<.001, for less restrictive alternative used; model χ^2=35.20, p<.037, for less restrictive alternative overlooked; goodness of fit=523.87, p<.001, for less restrictive alternative used; goodness of fit=469.91, p=.004, for less restrictive alternative overlooked

[2] The analyses controlled for social bias indicators (whether the clinician liked the patient; whether the clinician had preconceptions about the patient; the patient's female gender, age, and ethnicity; whether the patient was referred by the police; whether the patient was a community nuisance; whether the patient was homeless and resourceless; and history of hospitalization) and institutional constraints (the clinician's length of experience, the clinician-patient language and ethnic match, whether the patient had no insurance, the clinician's workload, and the difficulties in the physical setting of the emergency service).

[3] Measures the patient's dangerousness to self or others and grave disability

creased likelihood of referral to alternative care: the patient's having been a community nuisance (t=2.35, df=407, p=.02), homelessness and lack of resources (χ^2=25.56, df=1, p<.001), and a large number of previous hospitalizations (t=3.54, df=410, p<.001).

Three of the four severity indicators were associated with use of alternative care. Two indicators were associated with a decreased likelihood of use: a diagnosis of a psychotic disorder (χ^2=32.85, df=1, p<.001) and a patient's evident ability to benefit from hospitalization (t=12.85, df=304, p<.001). One indicator was associated with an increased likelihood of use: the clinician's perception that the patient was treatable (t=2.36, df=311, p=.019).

All three quality-of-care measures (the Art of Care Scale, the Technical Quality of Care Scale, and the optimum time measure) were related to use of less restrictive alternatives. Increased technical quality of care was associated with reduced use of such alternatives (t=4.97, df=423, p<.001). Increased art of care (t=4.69, df=423, p<.001) and evaluations that made more optimum use of time (t=2.19, df=423, p=.029) were associated with more frequent use of less restrictive alternatives. Among the quality indicators, only increased art of care was associated with a reduced tendency to overlook a less restrictive alternative (t=3.75, df=412, p<.001).

Multivariate analyses. When logistic regression was employed, use of less restrictive alternatives was predicted from indicators of quality of care and illness severity after taking account of institutional constraints and social bias indicators. As shown in Table 1, the model was statistically significant and correctly predicted the disposition of 84.7 percent of the cases. As expected, illness severity indicators were the most strongly associated with use of less restrictive alternatives. These were followed by quality-of-care indicators. None of the institutional constraints and only two of the nine social bias indicators were significantly associated with use of less restrictive alternatives.

If a person had no resources and was homeless, he or she was less likely to be referred to alternative care (b=−3.81, p<.01). However, if a clinician had a preconceived idea that the patient was a "good patient," he or she was more likely to be referred to an alternative setting (b=.85, p<.03). Of particular note is that a 100 percent improvement in the Art of Care Scale score—that is, in patient engagement—was associated with a 354 percent increase in the likelihood of referral to alternative care after all other predictors were taken into account (see Table 1).

Factors related to overlooking alternative care. In a logistic regression, clinicians' overlooking available alternatives was predicted from indicators of quality of care and severity of illness after institutional constraints and social bias indicators were taken into account. As shown in Table 1, the model was statistically significant and correctly predicted the disposition of 89.1 percent of the cases. In contrast to the first model, in the second model only two variables were significant—the Art of Care Scale score and police referral (b=.97, p<.02). The higher a clinician's art of care with a particular patient was rated, the less likely the clinician was to overlook use of alternative care. A 100 percent improvement in the Art of Care Scale score was associated with a 90 percent reduction in the chance of overlooking alternative care after other variables in the model were controlled. When the patient was referred by police, the clinician was 263 percent more likely to overlook an alternative.

Discussion

The findings of this study have several implications for managed mental health care. As noted above, the primary profits derived from managing mental health care are savings realized by significantly reducing the use

of inpatient hospitalization and other costly forms of treatment. Our findings suggest that the decision to use a less restrictive and less costly alternative to inpatient care is primarily determined by a patient's need, which is related to the severity of the patient's condition. Although we found that factors unrelated to need also influence such decisions, eliminating these factors would yield little additional reduction in inpatient utilization barring changes in the supply of appropriate alternatives.

Because the lack of appropriate alternatives to inpatient care has always been a problem, it is important that managed care organizations focus on developing less restrictive alternative care settings. Furthermore, because research has indicated that public general hospitals receive the most severe psychiatric cases (16,22), it would seem crucial for managed care organizations that work with these hospitals to be contractually obligated to develop much-needed alternative placements.

Also important for the managed care organization is making sure that available alternatives are not overlooked in the treatment plan. We found that the primary quality-of-care factor associated with the use of or tendency to overlook available alternatives was the clinician's ability to adequately engage the patient at a level appropriate to the patient's functioning—the art of care. If use of alternative care is to be maximized, clinicians must avoid the temptation to become overinvolved in the technical aspects of care at the expense of the art of care. Thus when organizations seek cost-efficiencies, medically necessary services must include efforts by personnel with sufficient psychosocial skills. Significant cuts in service providers who might appropriately engage patients will be costly in the long run.

Maximizing the quality of care would make it possible to increase the use of less restrictive alternatives by up to 14 percent, the proportion of cases in the sample in which alternative care was overlooked. Also, no alternative care settings were available for 39 percent of the sample. Therefore, improvement in both the availability of alternatives and the quality of care could lead to a 53 percent increase in the use of less restrictive alternatives—as well as a significant reduction in unnecessary inpatient care. Enhancing the availability of alternatives would provide the largest gain in avoiding inpatient hospitalization.

Conclusions

Increasing the use of less restrictive alternatives to inpatient care is a viable option for reducing service costs and meeting patients' needs. However, as the findings of this study indicate, realizing appropriate cost savings and maximizing the potential for meeting patients' needs are more likely contingent on the development of new alternative settings with supervised care rather than on improving the quality of care in the psychiatric emergency service. ♦

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