

UC Berkeley

UC Berkeley Previously Published Works

Title

Involuntary Return to a Psychiatric Emergency Service Within Twelve Months

Permalink

<https://escholarship.org/uc/item/0np060xh>

Journal

Social Work in Health Care, 35(1-2)

ISSN

0098-1389

Authors

Segal, Steven P
Akutsu, Phillip D
Watson, Margaret A

Publication Date

2002-08-20

DOI

10.1300/j010v35n01_13

Copyright Information

This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at <https://creativecommons.org/licenses/by-nc-nd/4.0/>

Peer reviewed

Involuntary Return to a Psychiatric Emergency Service Within Twelve Months

Steven P. Segal, PhD
Phillip D. Akutsu, PhD
Margaret A. Watson, DSW

SUMMARY. *Objective.* Under managed care, there is pressure to shorten hospital stays. Yet, previous investigations have shown longer hospitalizations following a psychiatric emergency service (PES) evaluation reduce recidivism. This study examines the relationship between post-PES hospitalization, patient characteristics and involuntary PES return within 12 months. It is done in a context where average duration of post-PES hospitalizations are 6 days, approximately 1/4 the duration of previous studies reporting positive effects of such hospitalization.

Method. Structured observations of PES evaluations of 417 patients were completed at 7 California county general hospitals. Follow-ups

Steven P. Segal is Professor, Schools of Social Welfare and Public Health at the University of California, Berkeley. Phillip D. Akutsu is Assistant Professor, Department of Psychology, University of Michigan. Margaret A. Watson is Director of Emergency Mental Health Services, Western Montana Mental Health Center-River House, Missoula, MT.

Address correspondence to: Steven P. Segal, Mental Health and Social Welfare Research Group, School of Social Welfare, 120 Haviland Hall (MC #7400), University of California, Berkeley, CA, 94720-7400.

This study was supported by the National Institute of Mental Health Grant RO1 # MH-37310 and Training Grant MH-18828.

[Haworth co-indexing entry note]: "Involuntary Return to a Psychiatric Emergency Service Within Twelve Months." Segal, Steven P., Phillip D. Akutsu, and Margaret A. Watson. Co-published simultaneously in *Social Work in Health Care* (The Haworth Social Work Practice Press, an imprint of The Haworth Press, Inc.) Vol. 35, No. 1/2, 2002, pp. 591-603; and: *Social Work Health and Mental Health-Practice, Research and Programs* (ed: Alun C. Jackson, and Steven P. Segal) The Haworth Social Work Practice Press, an imprint of The Haworth Press, Inc., 2002, pp. 591-603. Single or multiple copies of this article are available for a fee from The Haworth Document Delivery Service [1-800-HAWORTH, 9:00 a.m. - 5:00 p.m. (EST). E-mail address: getinfo@haworthpressinc.com].

were conducted at 12 months after initial evaluation. Study objectives are evaluated using multivariate modeling.

Results. Subsequent to the initial evaluation, 121 of the 417 patients (29.0%) were involuntarily returned to the PES. The likelihood of involuntary return was increased by a psychotic diagnosis and the seriousness of initial clinical presentations on the TRIAD dangerousness criterion measure. Having insurance also increased the likelihood of involuntary return.

Conclusions. As the patient's initial PES condition was found to be the best predictor of involuntary return and duration of post-PES hospitalization seemed to lose its prophylactic effect, it seems we have gone too far in reducing lengths of inpatient stays. We may have lost sight of the crucial role of this setting in stopping the revolving door and insuring appropriate care. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <getinfo@haworthpressinc.com> Website: <<http://www.HaworthPress.com>> © 2002 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Managed care, outcomes, psychiatric emergency services, PES, recidivism, repeated users, general hospital psychiatry

INTRODUCTION

In the provision of mental health services, the primary source of funds that allow managed care organizations (MCOs) the savings to develop a flexible and responsive service system is accrued from limits placed on the use of more costly services such as inpatient psychiatric care (1-3). Invariably, such critical decisions concerning psychiatric hospitalization are often made in the psychiatric emergency service (PES) in general hospitals where most civil commitment evaluations are completed. As such, it is a critical entry point into the mental health system.

Open twenty-four hours a day, the PES is a revolving door of service to the most needy patients. As many as one-third of the patients who are admitted to a PES are likely to return within the year. This is an upward trend from about 10% in the early 1970s to a high of 34% repeat users in the mid-1980s (4-18). If the use of inpatient psychiatric care is to be restricted under the auspices of managed care, it is crucial to better understand how specific factors associated with the patient's experience at the initial evaluation and post-PES interventions may predict future involuntary returns to the emergency service. This study examines the relation-

ship between patient characteristics at and following an initial evaluation and subsequent PES return within the following 12-month period.

Researchers have begun to identify some of the characteristics of repeat users of the PES. Demographic findings suggest that frequent users were more likely to be male (5-8), unmarried (6-7, 9-12), younger (6-8, 13), non-white (7, 14), and unemployed (6-7, 12, 15). Repeat users were also more likely to be unaccompanied or self-referred at the PES (10-13, 16-17), have a psychotic disorder (5-8, 10, 15-16, 18), a history of previous psychiatric hospitalizations (7, 9, 13, 16), a history of current or previous psychiatric treatment (10, 12-13, 15-16), and were perceived as a threat or danger to self and/or others at the time of the initial evaluation (6, 16).

The primary factors found to be helpful in preventing hospital returns were hospitalization following the initial evaluation (9, 19-22) as well as participation in an aftercare program (9). Despite this growing knowledge base, few studies have considered the possibility that efforts to constrain the use of inpatient care may be so excessive that we may be failing to devote enough time to the initial psychiatric inpatient service of these needy and troubled individuals. That is, in attempting to reduce inpatient costs by restricting hospital admissions and/or inpatient stays after the initial evaluation, we may fail to adequately treat the patient's condition and, therefore, precipitate a later PES return. If this presumption is false the previously found prophylactic effects of hospitalization and aftercare regimen will continue to be related to involuntary return under conditions of brief care. If it is true, the prophylactic effects for these clinical interventions will disappear and it may be assumed that factors contributing to PES return will be similar to those factors that first brought the patient to the hospital for his or her initial evaluation.

This study examines factors previously found to be significant in predicting PES return as possible considerations for such recidivism under conditions of brief post-PES hospital care. This study moves beyond previous investigations in its ability to consider clinical characteristics of the patient based on observational assessments of their initial evaluation. It further takes into account post-PES experiences as predictors in involuntary PES return.

METHOD

Sample

Data on 482 patients in the PES of seven county general hospitals in the San Francisco Bay Area were collected from independent observa-

tion of psychiatric evaluations, patient records, and the PES staff clinician's responses to a brief questionnaire. Observers had access to all conversations, record reviews, telephone conversations, etc., conducted during the observation. Subjects were chosen consecutively upon entry to the PES and clinical observations were completed around the clock and on all days of the week. We, thus, obtained a sample that was random in character. Mental health professionals experienced in assessing severely mentally ill patients were employed to gather the data. They were trained to use structured instruments for observation and chart review and in the completion of pre-structured process notes.

Twelve months after the initial evaluation, patient mental health and criminal justice records were reviewed for evidence of involuntary returns to a PES at these seven county general hospitals. Information was gathered on insurance coverage and conformity to medication and referral recommendations that were made at the initial evaluation. Vital statistics and criminal justice records were also checked for evidence of death or incarceration during the follow-up period. Patients were excluded from the analytic sample for the following reasons: 24 had either died or were incarcerated in prison/jail during the follow-up period; and 41 patients had returned to the PES voluntarily. The final sample consisted of 417 patients.

Measures

Criterion

Involuntary Return to PES Within 12 Months. Whether a patient was involuntarily returned to a PES in the San Francisco Bay area in the 12-month period following his or her initial evaluation was defined as the criterion variable for the study.

Predictors

History and Demographics. The patient's demographic characteristics (i.e., age, gender, ethnicity) and past history of psychiatric hospitalizations before the initial evaluation were included as predictors of PES return. These variables were often cited in the literature as significant factors contributing to PES recidivism.

Psychiatric Evaluation Criteria. Since the criterion variable was PES return, we chose four admission criteria from the initial evaluation that have been considered for patient retention in a controlled hospital

setting: (1) clinician assigned diagnosis of a psychotic disorder, (2) whether the psychiatric disorder was viewed as treatable by the clinician (Treatability Scale score) (26), (3) the patient's ability to benefit from hospitalization (Benefit from Hospitalization Scale score) (26), and (4) the patient's likelihood of causing harm to self, harm to others, or being gravely disabled at the time of the initial evaluation (TRIAD Scale score) (23-26).

Post-Evaluation Status. Four measures of the patient's post-evaluation status were also included: (1) the number of days spent in a psychiatric hospital after the initial evaluation and discharge, (2) whether the patient had medical or health insurance, and whether the patient complied with (3) medication or (4) referral recommendations that emanated from the initial evaluation.

Analyses

Demographic characteristics are reported along with univariate analyses of all variables predicting whether or not patients were involuntarily returned to the PES within 12 months. Group differences are evaluated using "t" and Chi-square tests. A logistic regression model is used to demonstrate the relative importance of indicators of the patient's involuntary return.

RESULTS

Characteristics of Patients

The sample's demographics in this study were that of a marginal group, one at high risk of involvement with systems of mental health and health care, social services, and law enforcement. The typical client was male (58%), 36.3 years of age, not black (82%), and had a history of 4.6 previous psychiatric hospitalizations before the initial evaluation. At the exit of the initial evaluation, the average Global Assessment Scale Score was 37.1 (SD = 13.32), indicating that most patients had serious difficulty in their daily functioning. Most of the patients in the sample had a psychotic diagnosis (66%, $n = 275$). Of those with a psychotic diagnosis, 153 (56%) had a schizophrenic condition, 61 an affective disorder (22%), and 61 (22%) had another type of psychotic condition (e.g., alcohol psychoses). While substance abuse diagnoses were less than adequate at the PES evaluation, 138 (33%) of the patients

had a condition complicated by such abuse at the time of their evaluation. This complication was significantly more likely to be true of non-psychotic members of the sample (49% vs. 27%, Chi-square = 1868, $p < .000$).

As an outcome of the initial evaluation, 66% of the patients were retained in an inpatient facility where they averaged 6.03 days in psychiatric hospitalization.

Clinicians and Evaluation Characteristics

Evaluating clinicians were primarily psychiatrists or other physicians (50%), but they also included registered nurses (16.4%), master's-level psychologists and social workers (6.8% per group), licensed psychiatric technicians (6.2%), other trainees (4.3%), PhD psychologists (2.5%), and persons with other credentials (7.4%). Most of the non-psychiatrists had a psychiatrist available for consultation. The evaluators had a mean clinical experience of 10.5 years ($SD \pm 10.0$, median 7.0), a mean experience in psychiatric admissions of 6.0 years ($SD \pm 5.4$, median 5.0), and a mean experience in the psychiatric emergency room of 5.5 years ($SD \pm 4.8$, median 5.0). Actual time for initial evaluations ranged from 15 minutes to 10 hours, with a mean of 1.42 hours, a median of 1.00 hour and a standard deviation of 1.22 hours.

Univariate Comparisons

Subsequent to the initial evaluation, 121 of the 417 patients (29.0%) were involuntarily returned to a PES in the San Francisco Bay area within a 12-month period.

Involuntary returnees and non-returnees did not differ in age, gender, racial composition, or their substance abuse involvements. Returnees were admitted to a psychiatric hospital more frequently in the past, before the initial evaluation, than non-returnees (Means = 7.0 vs. 3.8, $t = 2.38$, $p = .02$) and spent more days in the hospital after the PES evaluation (Means = 5.8 vs 3.3, $t = 2.53$, $p = .01$).

The condition of returnees at the initial evaluation was more seriously disordered on three of the four admission criteria. Returnees were more likely than non-returnees to be psychotic (85% vs 67%, Chi-square = 14.22, $p = .000$), determined to be more dangerous (TRIAD Means = 3.55 vs. 2.98, $t = 2.4$, $p = .02$), and deemed less treatable (Treatability Means = .36 vs. .42, $t = 2.29$, $p = .02$). However, returnees were not perceived as more likely to benefit from hospitalization than non-returnees

(Benefit for Hospitalization Scale Means = .50 vs. .56, $t = 1.64$, $p = .10$). All of the cases were viewed as likely to derive some benefit from hospitalization.

On the post-PES evaluation status indicators likely to affect future readmission, the returnees were more likely to have been insured than non-returnees (72% vs. 59%, Chi-square = 6.31, $p = .012$). Though not quite reaching significance, the returnees were also more likely to comply with their referrals for treatment than non-returnees (25% vs. 18%, Chi-square = 2.84, $p = .092$). These two groups did not significantly differ on reported medication compliance.

Multivariate Model

The primary predictors of a patient's involuntary return to the PES were a psychotic diagnosis and the seriousness of their presentation during the initial PES evaluation on the TRIAD dangerousness criterion (see Table 1). A psychotic diagnosis increases the probability of an involuntary PES return within 12 months by 241%; the TRIAD dangerous score by 36% for each three point increment in the total score compared to other patients. This three point increase is a clinically meaningful increase leading to a view of the patient as dangerous enough to be involuntarily admitted to an inpatient facility under the three dangerousness criteria: danger to self or others or grave disability. Having insurance also contributes to a 172% increase in the likelihood of an involuntary return.

DISCUSSION

Our findings indicate the likelihood of an involuntary return to the PES was dependent on the same factors that initially brought the patient to the PES—their psychosis and level of dangerousness. Having insurance or the financial resources to pay for services also increased the probability of an involuntary PES return. Of importance was the lack of significance of post-PES interventions in contributing to involuntary patient return. Specifically, neither the patient's compliance with treatment recommendations, whether for medications or referrals, nor the number of hospitalization days following the initial evaluation predicted or—as in past studies—prevented involuntary return.

These results must be understood in the light of the definition of dangerousness that comprised the TRIAD assessment tool. The acronym

TABLE 1. Factors Predicting Involuntary Return to PES Within Twelve Months of Initial Evaluation Evaluation (N = 417)*

Predictors	b	P value	Odds Ratio
HISTORY/DEMOGRAPHICS			
# Prior Psychiatric Hospitalizations	.00	N.S.	
Age	-.01	N.S.	
Gender (Female)	.13	N.S.	
Ethnicity	-.35	N.S.	
PSYCHIATRIC EVALUATION CRITERIA			
Dangerousness	.12	.031	1.12
Psychosis	.88	.004	2.41
Benefit from hospitalization	.00	N.S.	
Treatability	-.61	N.S.	
POST-PES EVALUATION STATUS			
# Psychiatric Inpatient Day	.02	N.S.	
Post Initial PES Evaluation			
Has insurance	.54	.031	1.72
Followed medication recommendation	-.33	N.S.	
Followed referral recommendation	.40	N.S.	

*Model Chi-Square Significant at $p = .0002$; 72% Correct Classification. Substance abuse status did not add significantly to the model nor did it affect any of the observed relationships.

TRIAD refers to: Three Ratings of Involuntary Admissibility—i.e., dangerousness to self and others or grave disability. High scores on the TRIAD scale result from the combination of behaviors and circumstances that in concert lead to the perception of an individual as dangerous because of a mental disorder and civilly committable. Individuals who are released or discharged from the PES or the hospital (after an admission precipitated by the PES evaluation) were likely to involuntarily return because of the same circumstances that brought them to the service in the first place. If this is not true immediately, given the current brief stays in psychiatric hospitals, halfway houses, or other alternative living situations (i.e., less restrictive alternatives), the crisis-oriented nature of our service system provides a structure which contributes to the pattern of rehospitalization within 12 months. Further, the extent of outpatient support for all but the high cost patients—the “gold card” few—is truly limited. As such, these low levels of psychiatric care have

only a residual effect on patient outcomes. The patient, therefore, returns to the PES with a new psychotic episode and is again perceived as a threat or danger to himself/herself or others. As such, the revolving door syndrome of care is completed.

Our findings replicate those of Lyons et al. (27) in that the only significant predictors of a return to an inpatient setting were the same patient characteristics that initially brought them to the PES. However, we differ from Lyons et al. in our interpretation of these similar findings. In adopting a pro-managed care perspective, Lyons' group tend to use their results to dismiss the critical role of inpatient stays in hospital outcomes. Yet Appleby et al. (19) found that increased duration of hospitalization was negatively related to the probability of readmission. This discrepancy in the findings may be explained by the variability in the length of hospitalization of the patients in these three studies. Our average patient stayed 6 days in the hospital post-PES entry. Lyons et al.'s group also averaged 6 days of hospitalization. In contrast, Appleby's patient group was hospitalized for a median duration of 17 days, with a third of the patients staying more than thirty days. We believe that hospital admissions have now become so short in duration that, for many patients, they preclude any successful resolution of the initial circumstances that brought the person to the hospital in the first place. These conclusions are further reinforced by Klinkenberg and Calsyn's (9) findings indicating that hospital admission following the initial PES episode was associated with preventing returns. In this study, patients were hospitalized for 24 days on average—four times the amount of time stayed by those in our study and that of the Lyons group (personal communication, 9/12/97).

To further test the hypothesis that duration of hospital stays have been unduly shortened and that the range of hospitalization duration has become so restrictive that it may now have become irrelevant in linear modeling of PES return, we crosstabulated the duration of hospital stay post-PES measure, divided into meaningful segments, by patient recidivism within twelve months. Duration of stay was divided into four categories: those staying less than twenty-four hours (i.e., generally overnight and some part of the following day), a group whose situations were believed to be most easily resolved; two intermediate groups of 1-8 and 9-16 days; and, those staying 17 days or more, the median duration reported in Appleby's study, where prophylactic effects of hospital duration obtained and a point at which clinicians had to seek a renewal of certification orders if the patient were to be retained (a situation, in its requirements for clinical justification under conditions of bed scarcity,

that is similar to that of seeking authorization for extended treatment under managed care utilization review). The categorical crosstabulation was significant (Chi Square = 8.3, d.f. = 3, $p = .03$) and seemed to indicate a curvilinear relationship in the data. Those individuals staying less than a twenty-four hours returned at a rate of 1 in 4 (26.5%), the 1-8 day group at a rate of more than 1 in 3 (37.8%), the 9-16 day group at a rate of 1 in 2 (49%), and the 17 plus day group at a rate of less than 1 in 3 (32%). The data support a hypothesis that the mid-range groups were perhaps staying too brief a period of time to resolve their situations and an observation that had clinicians not faced a difficult process of justification for a continuation of hospital certification for continued care these individuals might have had their situations more adequately resolved. In this situation the culprit may be the strict recertification requirements, but the analogy to clinical justification under managed care utilization review with conditions of bed scarcity is very strong.

White et al. (28) found insurance coverage to be a factor in admission following PES evaluation. Including Medicaid coverage as a type of insurance, the insured in this study were more likely to return to the PES in our study. These individuals were most likely to have access to psychiatric care and, thus, more likely to come to the attention of people capable of initiating an involuntary PES return. More importantly, they had resources to cover the costs of care that they apparently still required. It must be emphasized that patients in our sample, whether in the returnee or non-returnee groups, were rated as having a strong ability to benefit from hospitalization.

The results of this study must be viewed as generalizing only to the patient population that is served by the seven hospitals studied in the San Francisco Bay area. Yet their implications in a penurious system based on managed care principles and focused on crisis prevention rather than long-term care are significant. Extensive restrictions on inpatient care may be penny wise and pound foolish. This fact may especially prove to be the case in health care environments that have already negotiated reduced rates for inpatient care. Our findings suggest the more critical goal is to find a means to stabilize the patient's situation at the exit of the initial evaluation or by the end of the hospitalization following their initial evaluation. Particular attention must be given to circumstances contributing to the person's dangerousness and/or grave disability status. Since both factors are defined by combinations of behavior and circumstances, the failure to allow enough time to modify the circumstances associated with these factors may lead to a PES return.

CONCLUSIONS

Under managed care, there will be extreme economic pressure to limit the use of PES facilities and inpatient hospitalization. As the patient's condition at the initial evaluation was found to be most important in predicting recidivism—rather than external PES constraints, hospitalization duration following the initial evaluation, or conformity to after-care regimen—it is perhaps necessary to consider greater durations of inpatient retention following the initial evaluation to reduce the likelihood of involuntary PES return. In our cost conscious environment, greater access to inpatient care is an increasing difficulty. At the least, greater emphasis must be placed on the development of supervised residential alternatives to inpatient care (29). From the results of our study as well as other investigations (e.g., Appleby et al. (19), it would appear that brief hospitalization, currently the mainstay of treatment efforts, may be too short and insufficient for meeting the needs of seriously mentally ill individuals. Such procedures may be merely setting up the conditions for a “revolving door” effect or “band-aid” treatment. These conditions, however, cannot be attributed to the lack of quality efforts on the part of hard working and often frustrated hospital staff (30). It is more likely these results derive from a lack of financial resources. For in the presence of such funding resources (insurance), people will receive additional inpatient care during the 12-month follow-up period at a 172% greater frequency than their fellow patients. Rather than an abuse of available insurance, this practice is more likely a well meaning attempt to recognize the patient's ability to benefit from inpatient care.

REFERENCES

1. Winegar N: *The Clinician's Guide to Managed Mental Health Care*. New York: The Haworth Press, Inc., 1992.
2. Dorwart RA: Managed mental health care: Myths and realities in the 1990s. *Hospital and Community Psychiatry*, 41: 1087-1091, 1990.
3. Fishel L, Janzen C, Bemak F et al.: A preliminary study of recidivism under managed mental health care. *Hospital and Community Psychiatry*, 44: 919-920, 1993.
4. Ellison, JM, Blum, N, Barsky, AJ: Repeat visitors in the psychiatric emergency service: A critical review of the data. *Hospital and Community Psychiatry*, 37: 37-41, 1986.
5. Oyewumi LK, Odejide O, Kazarian SS: Psychiatric emergency services in a Canadian city: I. Prevalence and patterns of use. *Canadian Journal of Psychiatry*, 37: 91-95, 1992.

6. Nurius PS: Emergency psychiatric services: A study of changing utilization patterns and issues. *International Journal of Psychiatry in Medicine*, 13: 239-254, 1983.
7. Sullivan PF, Bulik CM, Forman SD et al.: Characteristics of repeat users of psychiatric emergency service. *Hospital and Community Psychiatry*, 44: 376-380, 1993.
8. Surles RC, McGurrin MC: Increased use of psychiatric emergency services by young chronic mentally ill patients. *Hospital and Community Psychiatry*, 38: 401-405, 1987.
9. Klinkenberg WD, Calsyn RJ: The moderating effects of race on return visit to the psychiatric emergency room. *Psychiatric Services*, 48: 942-945, 1997.
10. Perez E, Minoletti A, Blouin J et al: Repeated users of a psychiatric emergency service in a Canadian general hospital. *Psychiatric Quarterly*, 58(3): 189-201, (1986-1987).
11. Slaby AE, Perry PL: Use and abuse of psychiatric emergency services. *International Journal of Psychiatry in Medicine*, 10: 1-8, 1980.
12. Voineskos G: New chronic patients in the emergency service. *Psychiatric Journal of the University of Ottawa*, 10: 95-100, 1985.
13. Bassuk E, Gerson S: Chronic crisis patients: A discrete clinical group. *American Journal of Psychiatry*, 137: 1513-1517, 1980.
14. Snowden LR, Holschuh, J: Ethnic differences in emergency psychiatric care and hospitalization in a program for the severely mentally ill. *Community Mental Health Journal*, 28: 281-291, 1992.
15. Munves PI, Trimboli F, North AJ: A study of repeat visits to a psychiatric emergency room. *Hospital and Community Psychiatry*, 34: 634-638, 1983.
16. Ellison JM, Blum NR, Barsky AJ: Frequent repeaters in a psychiatric emergency service. *Hospital and Community Psychiatry*, 40: 958-960, 1989.
17. Lim MH: A psychiatric emergency clinic: A study of attendance over six months. *British Journal of Psychiatry*, 143: 460-466, 1983.
18. Hansen, TE, Elliott, KD: Frequent psychiatric visitors to a veterans affairs medical center emergency care unit. *Hospital and Community Psychiatry*, 44: 372-375, 1993.
19. Appleby L, Desai PN, Luchins, DJ et al.: Length of stay and recidivism in schizophrenia: A study of public psychiatric patients. *American Journal of Psychiatry*, 150(1): 72-76, 1993.
20. Caton CLM, Goldstein JM, Serrano O and Binder R: The impact of discharge planning on chronic schizophrenic patients. *Hospital and Community Psychiatry*, 1984; 35:255-262.
21. Brown G, Bone M, Dalison B, and Wing JK: *Schizophrenia and Social Care*. London, Oxford University Press, 1966.
22. Zolik ES, Lantz EM, Sommers R: Brief versus standard psychiatric hospitalization: A review of the literature. *Community Mental Health Journal*. 1965; 1:233-237.
23. Segal SP, Watson M, Goldfinger S et al.: Civil commitment in the psychiatric emergency room: I. The assessment of dangerousness by emergency room clinicians. *Archives of General Psychiatry*, 45: 748-752, 1988a.
24. Segal SP, Watson M, Goldfinger S et al.: Civil commitment in the psychiatric emergency room: II. Mental disorder indicators and three dangerousness criteria. *Archives of General Psychiatry*, 45: 753-758, 1988b.
25. Segal SP, Watson M, Goldfinger S et al.: Civil commitment in the psychiatric emergency room: III. Disposition as a function of mental disorder and dangerousness indicators. *Archives of General Psychiatry*, 45: 759-763, 1988c.

26. Segal SP, Egle L, Watson M et al.: Quality of care and outcomes in the PES. *American Journal of Public Health*, 85(10): 1429-1431, 1995.
27. Lyons J, O'Mahoney M, Miller S et al.: Predicting readmission to the psychiatric hospital in a managed care environment: Implications for quality indicators. *American Journal of Psychiatry*, 154(3): 337-340, 1997.
28. White CL, Bateman A, Fisher WH et al.: Factors associated with admission to public and private hospitals from a psychiatric emergency screening site. *Psychiatric Services*, 46(5): 467-472, 1995.
29. Segal SP, Watson M, Akutsu PD: Quality of care and use of less restrictive alternatives in the psychiatric emergency service. *Psychiatric Services*, 47: 623-627, 1996.
30. Segal SP, Egle L, Watson M et al.: Quality of care in psychiatric emergency services. Breakthrough, in press.