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DETERMINANTS AND VALIDITY OF DISPOSITIONS
MADE IN PSYCHIATRIC EMERGENCIES

by

Mary Catherine Moore

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts

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VITA

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INTRODUCTION

The utilization of psychiatric emergency services has increased dramatically over the past fifteen years (Gerson & Bassuk, 1980). Often representing the chief point of entry for individuals in need of mental health treatment, the psychiatric emergency service has been referred to as the "semipermeable membrane of the community mental health system" (Schwartz, Weiss, & Miner, 1972, p. 86), operating at the forefront of mental health care. Given the rapid growth of psychiatric emergency services and their enormous potential for impact on both the patient and the mental health care system, surprisingly little research has been devoted to this area.

Those studies which have been undertaken in psychiatric emergency facilities have investigated, for the most part, the determinants of the decision to hospitalize or not to hospitalize the patient from the emergency room. Relatively little data is available, however, to assess the validity of these decisions, such as follow-up studies of patients discharged from the emergency room or hospitalized from the emergency room. In addition, few studies are available which have taken the complexity of decision-making in psychiatric emergencies into account. In a recent review, Gerson and Bassuk (1980) described the task of the psychiatric emergency service as follows: "to absorb the weighty burden of containing and defining the

unmanageable emotional turmoil of the patient and then directing the patient into longer term sources of treatment" (p. 2). The outcome of this task is considered to be a function of a complex interaction matrix, involving system, patient, therapist, and patient-therapist relationship variables (Gerson & Bassuk, 1980). In addition to these variables, there is sufficient evidence from other areas of research indicating the importance of the "significant other" (e.g., Ellsworth, 1975) in mental health treatment to warrant the inclusion of significant other variables in studying psychiatric emergency services.

The purpose of this study is to investigate the process of decision-making in psychiatric emergencies, using the emergency service of Ravenswood Hospital Community Mental Health Center as the source of data. More specifically, the study has two aims: (1) to determine which factors influence dispositions made in psychiatric emergencies at Ravenswood Hospital and to compare these factors to those identified in other studies; and (2) to assess the validity of these dispositions by conducting a follow-up study of patients utilizing the psychiatric emergency service, using self-report data from patients and their significant others.

LITERATURE REVIEW

The interaction matrix involved in psychiatric emergency dispositions, described by Gerson and Bassuk (1980), predicts several categories of variables with potential for impact on dispositional decision-making: 1. system variables, such as atmosphere, treatment philosophy, and length of time available for assessment; 2. patient variables, both demographic/social and clinical status; 3. significant other variables, such as the family's desires for the patient's treatment and their availability as a support system; 4. therapist variables, such as profession, experience, and emotional response to the patient; and 5. patient-therapist interaction variables, such as complementarity in the perception of the problem and in the final dispositions. Studies which investigate the impact of each of these categories on dispositions made in psychiatric emergencies will be systematically reviewed in the following discussion. In addition, studies which address the validity of such dispositions will be included where available.

System Variables

Emergency psychiatric services, most often located within the general hospital emergency room, are highly influenced by the hectic emergency room atmosphere. Gerson & Bassuk (1980) discuss the impact of the function, organization, treatment approach, and atmosphere of

the emergency room on emergency psychiatric treatment. Since most emergency rooms are designed to enhance the containment and resolution of life-threatening problems, rapid assessment and rapid dispositions are given high priority (Hankoff, Mischorr, & Tomlinson, 1974). Emergency room patients also often communicate a strong sense of urgency to staff, having arrived at the emergency room only after reaching the point at which they could no longer tolerate their problems (Miller, 1968).

The combination of time pressure and the patient's communicated sense of urgency have a powerful effect on emergency psychiatric dispositions. For example, Baxter, Chodorkoff, and Underhill (1968) found that dispositional decisions for over half the patients seen in a hospital emergency room were made in less than 15 minutes. The demand for and practice of rapid intervention leads the therapist to focus on "pathognomonic indicators" to the exclusion of other important factors, such as the precipitants and dynamics of the problem, the social context of the problem, and the amenability of the problem to emergency psychotherapy or crisis intervention (Gerson & Bassuk, 1980). The focus on such indicators, which can be obtained very quickly by the emergency room therapist, has the potential for increasing the chances of inappropriate hospitalization for patients who are uncommunicative, have a previous psychiatric history, or have a poor physical appearance (Krystal, 1968). Interestingly, when psychiatric emergency evaluations are extended over a longer period of time, several studies show decreased hospitalization rates and

increased acceptance of treatment referrals by patients (Chafetz, 1965; Muller, Chafetz, & Blane, 1967).

Related to the sense of urgency and time pressure in the emergency room is its impersonal atmosphere. The long waiting period, in an often crowded room, has the potential for exacerbating the condition of an already anxious patient (Gerson & Bassuk, 1980). There is often little opportunity for establishing patient-therapist rapport; as Coleman (1968) states: "discontinuity of care and the formalistic, uncommunicative manner in which procedures are conducted reduce to a minimum the opportunity for patients to establish emotional rapport with staff. . . social distance is a preferred value in the staff-patient relationship" (p. 1670). Several studies have demonstrated the importance of patient-therapist rapport in making the best possible emergency psychiatric disposition (e.g., Gerson, 1979), indicating that this impersonal atmosphere may be a critical deterrent to good decision-making.

In spite of the impersonal atmosphere of the emergency room, it often represents the chief point of entry into mental health treatment for many individuals (Schwartz, Weiss, & Miner, 1972). There is some speculation that patients in crisis may, in fact, seek out this type of impersonal atmosphere. For example, Coleman (1968) sees it as paradoxical that

people come with problems of a highly personal nature to a medical facility in which the elements of impersonality and discontinuity are built in by its structure and function. . . our impression is that it represents a gesture of reaching

out for an impersonal kind of solace, during periods of alienation, for patients who feel cut off from their ordinary sources of social support. (p. 1670)

Legal and ethical pressures on the emergency room therapist also impact on emergency psychiatric dispositions. The therapist is in a position of a "gatekeeper" who decides whether a patient's behavior can be tolerated in the community or requires a protective environment (Schwartz, Weiss, & Miner, 1972). While attempting to act in the patient's best interest, the therapist is subject to legal sanctions which exert influence on the final disposition. Gerson and Bassuk (1980) point out a tendency for therapists to be hypervigilant to indicators of dangerousness for several reasons: legal sanctions for releasing a patient who might become violent or self-destructive; frequent history of violent or self-destructive behavior in emergency psychiatric patient; and therapist concern about personal safety.

Patients in crisis are said to elicit disorganized helping responses from others, conveying an overwhelming sense of helplessness and fear of losing control (Caplan, 1964). As the therapist responds to the patient's sense of urgency and helplessness, often rushing into an attempt at immediate resolution of the problem, alternate sources of information and support, such as the patient's family or friends, are neglected and sometimes seen as unwelcome intrusions (Gerson & Bassuk, 1980). Therapist hypervigilance and patient sense of urgency can lead to rapid decision-making which

fails to thoroughly assess all relevant variables and determine the best possible treatment for the patient (Gerson & Bassuk, 1980).

In addition to influencing psychiatric dispositions, the atmosphere of the emergency room has a profound impact on the therapist's affective state. Emergency room therapists are confronted with patients suffering from a wide variety of problems, who tend to have a long-standing history of emotional difficulties, who arrive at the emergency room involuntarily in many instances, and who are often belligerent (Gerson & Bassuk, 1980). There is often a limited range of available dispositions; these dispositions may be complicated by long outpatient waiting lists, unavailability of inpatient beds, and competitive relationships with other facilities, to name a few (Gerson & Bassuk, 1980). The task of the emergency room therapist is extremely complex, demanding, and frustrating, yet this job is typically assigned to therapists in the beginning stages of training (Gerson & Bassuk, 1980).

In a survey of emergency room therapists, therapists labeled their work as onerous and unrewarding (Blane, Miller, & Chafetz, 1967). Therapists under stress often begin to experience phobic avoidance, which shows up in long delays in responding to calls, feelings of resentment, and frequent complaints (Gerson & Bassuk, 1980). Therapists also begin to experience strong negative attitudes toward specific types of patients (Chafetz, 1965). Since therapists' emotional reactions to their patients exert a strong influence on

dispositional decisions (e.g., Gerson, 1979), the impact of the emergency room atmosphere on the therapist emotional state is extremely important.

The best evidence for the impact of system variables on emergency psychiatric dispositions comes from Feigelson (1978). In his study of admissions to four Manhattan emergency rooms, he found that the service facility, that is, the hospital performing the evaluation, accounts for more of the dispositional variance than any other variable (Feigelson, 1978). The differences in rate of admissions were attributed to two factors: the presence of experienced attending physicians rather than residents as primary decision-makers and the presence of crisis intervention programs in the emergency room (Feigelson, 1978). The author did not study any of the above system variables thought to be related to decision-making.

To summarize, system variables which have been found to impact on emergency psychiatric treatment decisions include time pressure, the emergency patient's communicated sense of urgency, the focus on "pathognomonic indicators" in decision-making to the exclusion of other important factors, the impersonal atmosphere of the emergency room, legal and ethical pressures on therapists, the tendency toward disorganized helping responses to the patient in crisis, and the therapist's affective response to the pressure and atmosphere of the emergency room. In addition, there is some evidence which suggests that the treatment philosophy of the emergency room, such as the

extent to which crisis intervention programs are available rather than evaluation/disposition services only, is an important variable related to disposition.

Patient Variables

A large variety of patient variables have been studied as potential determinants of dispositional decisions made in psychiatric emergencies. These variables can be divided into two categories: patient demographic variables, such as age, sex, race, marital status, and socioeconomic state; and patient clinical status variables, such as severity of psychopathology, diagnosis and symptoms, dangerousness, and previous psychiatric history.

Past reviews have categorized the above variables as psychiatric (patient clinical status) and extrapsychiatric (patient demographics). In a recent review, Krohn and Akers (1977) point out that "the relative explanatory power of psychiatric and social variables in the decision to hospitalize and retain mental health patients has been debated primarily by those committed to either the psychiatric or the labelling model" (p. 341). In the traditional psychiatric model, deviant behavior is considered symptomatic of underlying psychopathology; that is, diagnosis is thought to be unaffected by variables external to the type, severity and progress of the mental disease (e.g., Gove, 1975). On the other hand, according to the labelling model, decisions made by mental health professionals are attributed largely to variables other than the behavior and treatment

needs of their patients; for example, practitioners are thought to sustain individuals in a social role labelled mental illness (e.g., Scheff, 1974).

Research has traditionally considered the question "to which set of variables, psychiatric or extra-psychiatric, are the decisions of mental health agents more strongly related" (Krohn & Akers, 1977, p. 343)? It is clear from Gerson and Bassuk's (1980) view of the emergency room disposition as the endproduct of a complex interaction matrix, involving much more than patient variables, that this question is oversimplified. Krohn and Akers (1977) state that the above views present a very narrow choice of variables; in their review, these two views were not considered to best account for research findings.

Research on patient variables as determinants of psychiatric emergency dispositions has been characterized by oversimplification of the decision-making process which fails to include many relevant variables (Scheff, 1979); and by methodological weaknesses (Krohn & Akers, 1977). Many studies are epidemiological studies of psychiatric impairment prior to decision-making, looking only at demographic characteristics of hospitalized patients (Krohn & Akers, 1977). In addition, Krohn and Akers (1977) point out that most studies fail to distinguish between samples of predominantly voluntary patients and samples of predominantly involuntary patients. Finally, studies of psychiatric emergency treatment tend to lack adequate controls and standardized measures of severity of

psychopathology (Krohn & Akers, 1977).

An attempt has been made in this review to include studies which, at a minimum, collected data for an entire sample of emergency room patients prior to disposition. Almost all of these studies reviewed here are descriptive studies, in which patients utilizing emergency room services are interviewed, data is collected, and dispositions are made. The data is then analyzed with some type of multivariate statistic to obtain the best predictor variables of hospital admission. These studies do not use a randomly selected patient sample and lack external validity. In addition, the use of multivariate analysis is often questionable, given the large number of predictor variables of the often small number of subjects in the hospitalized and non-hospitalized groups. The most overwhelming methodological flaw of such studies is the failure to obtain follow-up data. Thus, determinants of disposition are investigated without the potential for addressing the validity of these dispositions.

Having pointed out the methodological and conceptual problems involved in studies of emergency psychiatric dispositions, the findings of studies meeting the minimum research criteria set above will be reviewed. Following Gerson and Bassuk (1980), the research on the following patient variables--age, sex, marital status, socioeconomic status, severity of psychopathology, diagnosis and symptoms, psychiatric history, and dangerousness--will be reviewed separately.

Age. Several studies of psychiatric emergencies have concluded

that as age increases, the rate of hospitalization following an emergency room visit increases (Hanson & Babigian, 1974; Tischler, 1966). Other studies find that age is not a significant predictor of hospitalization from the emergency room (Baxter, Chodorkoff, & Underhill, 1968; Etcheverry, 1977; Feigelson, 1978; Paykel, Hallowell, & Dressler, 1974; Tyson, Miller, & Browning, 1970). Schwartz and Errera (1963), in a more comprehensive study, found that rates of hospitalization increased with age in only two diagnostic groups: alcoholism and organic brain disease. When Etcheverry (1977) failed to replicate any of the findings of previous studies indicating increased rate of hospitalization as age increases, he suggested that the current presence of alternate treatment resources, such as nursing homes and board and care homes, prevent older people from being hospitalized in many instances.

In their review, Gerson and Bassuk (1980) concluded that the general direction of the relationship between age and hospitalization is toward a greater chance of being hospitalized as age increases. In contrast, only two studies out of eight reviewed for this section support a relationship between age and the chances of being hospitalized. It seems more likely that age is only a significant predictor of hospitalization when linked with an intervening variable, such as diagnosis.

Sex. All of the studies reviewed for this paper concluded that the sex of the patient is not a significant predictor of hospitalization from the emergency room (Baxter, Chodorkoff, & Underhill, 1968;

Etcheverry, 1977; Feigelson et al., 1978; Tischler, 1966). Gerson and Bassuk (1980) point out that several non-clinical studies show that men are more likely to be judged mentally ill than women when displaying identical symptoms. They also cite evidence to support the idea of a more stringent social reaction to mental illness in men.

Epidemiological studies of utilization rates of psychiatric emergency services give conflicting information on the distribution of the sexes. In one study (Miller, 1968), 71% of patients contacting the emergency service were female and 29% male. In contrast, Muller, Chafetz and Blane (1967) provide data showing no outstanding difference in admission rates of men and women. Trier and Levy (1969) found no difference in utilization rates of emergency room services for men and women. A marginally significant difference in the utilization rates of emergency services was found by Schwartz, Weiss, and Miner (1972); in their study, women utilized emergency services more than men.

From the above, it is clear that there is no unequivocal evidence of a consistent relationship between sex of the patient and the likelihood of being hospitalized following an emergency room visit; nor is there a clear-cut difference in psychiatric emergency service utilization rates between the sexes.

Marital status. Only one study reviewed provided support for the marital status variables as a predictor of emergency disposition. In Tischler's (1966) study, patients who were hospitalized following

an emergency room visit had a more frequent occurrence of "marital disruption," i.e., were widowed, separated, or divorced. Two studies provided no support for marital status as a predictor of emergency disposition (Baxter, Chodorkoff, & Underhill, 1968; Etcheverry, 1977).

Gerson and Bassuk (1980) conclude that: "the chance of being hospitalized is significantly greater if the patient has lost his or her partner through separation, divorce or death (p. 5)." Krohn and Akers (1977) conclude that "admission to hospital treatment is positively related to social class and marital status among voluntary patients and negatively related to class, race and marital status among involuntary patients" (p. 355). It seems that marital status is not a good predictor of hospitalization, but may interact with other variables, such as voluntary-involuntary status, as a dispositional determinant.

Socioeconomic status. Social class as a variable influencing mental health treatment has been extensively studied over the past twenty years (Gerson & Bassuk, 1980). In a study of community characteristics affecting hospitalization rates, Schweitzer and Kierszenbaum (1978) found several socioeconomic variables to be extremely powerful predictors of hospitalization. Admission was negatively correlated with income and educational level and positively correlated with unemployment.

Studies of emergency room dispositions yield more equivocal results for the social class variable (Gerson & Bassuk, 1980).

Tischler (1966) found that more hospitalized than non-hospitalized patients fall into Hollingshead class V; patients not hospitalized from the emergency room tended to fall into classes I-IV. Two studies reviewed found that socioeconomic status did not account for a significant proportion of the variance in the decision to hospitalize (Baxter, Chodorkoff, & Underhill, 1968; Etcheverry, 1977). Gerson and Bassuk (1980) found only one study in which a significant relationship between social class and disposition was supported. In this study (Shader, Binstock, & Ohly, 1969, cited in Gerson & Bassuk, 1980), upper-class patients, regardless of diagnosis, were less frequently hospitalized than patients from other social classes. In addition, those patients with higher socioeconomic status were most frequently offered psychotherapy.

Gerson and Bassuk (1980) suggest that the lack of congruence between epidemiological studies of hospital admission and emergency room studies could be due to different patterns of utilization of emergency room services by the various social classes. Coleman (1968) states that 82.5% of patients utilizing the emergency service of Yale-New Haven Hospital are in the two lowest socioeconomic groups. Muller, Chafetz, and Blane (1968) have suggested that the lower class standing of most emergency room patients is an artifact of socioeconomic deterioration as a result of psychiatric impairment. Given the over-representation of lower-class patients in the emergency service population, Gerson and Bassuk (1980) suggest that lower-class patients, having no private doctor, can be expected to be present in the

emergency room with a non-emergent problem. On the other hand, higher-class patients, having access to private physicians, can be expected to be present in the emergency room with severe, acute problems. Thus, Gerson and Bassuk (1980) suggest that similar emergency room hospitalization rates for all social classes may reflect class-related differences in severity of psychopathology at the time of emergency room evaluation, rather than the absence of dispositional biases.

Severity of psychopathology. Three of the four studies reviewed found a positive relationship between severity of psychopathology and the likelihood of being hospitalized from the emergency room. Tischler (1966) used the Manifest Pathology Scale (MPS) to determine severity of psychopathology among emergency service patients. In his study, patients who were hospitalized following an emergency room visit had higher MPS scores than non-hospitalized patients. Tischler (1966) concluded that "the more pervasive the psychopathology, the greater the likelihood of hospitalization" (p. 72); however, his results were significant only at the 1% confidence level. He derived his conclusion by splitting the distribution of MPS scores into quartiles, finding 83% of high MPS scorers to have been hospitalized from the emergency room.

Etcheverry (1977), in a study of emergency room disposition, found that hospitalized patients had more severe symptoms as rated by therapists than non-hospitalized patients. In addition, hospitalized patients were rated as behaving in ways that were socially

unacceptable and/or indicated the need for intensive treatment and external control. These results are supported by Feigelson (1978), who used the Global Assessment scale to measure severity of psychopathology. In their study, severity of illness was a significant determinant (.01 level) of admission from the emergency room, accounting for 5.47% of the variance. Mendel and Rapport (1969) found very little variation in severity of symptoms to be related to the decision to admit.

Gerson and Bassuk (1980) point out that severity of psychopathology is a quantitative, rather than qualitative judgment; unfortunately, no two studies use the same instrument to measure severity of psychopathology. Severity ratings range from MPS ratings, which are compiled from three separate subscales measuring mental status, behavior, and symptoms, to single five-point scales (Geron & Bassuk, 1980). The lack of consistency in measurement makes the above findings difficult to interpret; however, it does seem clear that severity of psychopathology is a significant factor in determining emergency room disposition.

Diagnosis and symptoms. Several studies have found significant relationships between diagnosis and emergency room disposition. For example, Tischler (1966) found that patients hospitalized following an emergency room disposition were more likely to have a diagnosis of psychosis or organic brain syndrome, whereas non-hospitalized patients were more likely to have a diagnosis of neurosis or personality disorder. Baxter, Chodorkoff and Underhill (1968) found the diagnosis

of psychosis to be a significant predictor of hospitalization. Their results, however, are questionable. They claim that psychosis is a significant predictor simply because it appeared as a variable in a stagewise linear multiple regression analysis. However, psychosis as a predictor variable accounted for virtually none of the variance. Scheff (1979) interprets this finding as an artifact, due to Feigelson et al.'s use of four intercorrelated variables. The four intercorrelated variables produce speciously large zero-order correlations with the dependent variables; thus, psychosis appeared first without being a significant predictor of admission.

Gerson and Bassuk (1980) suggest that the relationship between diagnosis and dispositional decisions may be an artifact of the decision-making process itself, rather than a causal link. In a statistical survey Muller, Chafetz, and Blane (1967) concluded that "diagnosis per se has little if anything to do with important treatment decisions, as represented by hospitalization" (p. 52). They surveyed five facilities treating patients with different diagnoses and found very similar hospitalization rates. It is suggested that the failure of diagnosis to predict hospitalization may be attributed to both the unreliability of nosological judgments and to the fact that acute emergency syndromes are widely distributed in different diagnostic categories (Muller, Chafetz, & Blane, 1967). Thus, the decision to hospitalize could be expected to be related more to the emergent nature of a presenting problem rather than to the diagnostic category.

Several studies have found significant relationships between symptoms and emergency room disposition. Tischler (1966) found the following symptoms to be most prevalent among hospitalized patients: an untidy general appearance, impairment in stream of thought, defects in concentration or judgment, delusions, hallucinations, and suicidal actions. Non-hospitalized patients were observed to have a neat general appearance, unimpaired stream of thought, and friendliness (Tischler, 1966). Tischler (1966) subdivided non-hospitalized patients into two groups: those whom residents offered to see personally for follow-up treatment and those who were offered no follow-up. Patients who were offered follow-up treatment frequently had anorexia, sleep disturbance, despondence, and suicidal ideation; whereas patients who were not offered follow-up were observed as being indifferent, angry, hostile, or violent.

Baxter, Chodorkoff, and Underhill (1968) found the following symptoms to be predictors of admission: inability to communicate, poor physical appearance, long duration of current episode of illness, and good prognosis. In Gerson's (1978) study, hospitalized patients were rated as more functionally impaired than non-hospitalized patients and as having greater disturbance in thought processes.

It seems that diagnosis is not among the most important determinants of emergency room dispositions. On the other hand, there is considerable support for certain symptoms as significant determinants of admission. The affect of an emergency patient also appears to be

significantly related to the likelihood of being offered follow-up treatment by the emergency room resident. In particular, patients with hostile, angry, or indifferent affect, regardless of symptom severity, are less frequently offered follow-up care by the emergency room staff. This finding seems particularly relevant to the impact of the therapist's emotional response to the patient, and will be discussed more extensively in the section on therapist's variables.

Psychiatric history. Gerson and Bassuk (1980) state that a history of psychiatric disturbances appears to be a major variable in dispositional decisions. All of the studies reviewed support their position. Baxter, Chodorkoff, and Underhill (1968) found that a history of previous episodes of illness discriminates significantly between hospitalized and non-hospitalized emergency room patients. Similarly, Mendel and Rapport (1969) found previous hospitalization to be one of the variables most predictive of the decision to admit. History of previous hospitalizations was a significant predictor in Feigelson et al. (1978), accounting for 3.363% of the total variance; in addition, Gerson (1978) found patients hospitalized following an emergency room visit to be more likely to have a history of previous psychiatric treatment.

Although these results seem to support psychiatric history as a significant dispositional determinant, it is unclear in the above studies what is considered psychiatric history. Some studies clearly indicate previous hospitalization (e.g., Feigelson et al., 1978;

Mendel & Rapport, 1969); others refer to previous psychiatric treatment or to previous episodes of illness (e.g., Baxter, Chodorkoff, & Underhill, 1968; Gerson, 1978). It seems crucial for future studies to clarify psychiatric history by separating previous inpatient treatment from previous outpatient treatment.

Dangerousness. The likelihood of harming oneself or others, dangerousness, is considered to be the most influential class of symptoms in emergency dispositional decision-making (Gerson & Bassuk, 1980). Baxter, Chodorkoff, and Underhill (1968) found the judgment of dangerousness to be a highly significant predictor of hospitalization; in their study, 11 out of 23 variables were significant determinants of admission, but dangerousness far outweighed any other variable. In Tischler's (1966) study, suicidal actions were more prevalent among hospitalized patients; however, neither suicidal thoughts or homicidal thoughts discriminated between hospitalized and non-hospitalized patients. Gerson (1978) found that patients hospitalized following an emergency room visit were rated as more potentially dangerous than non-hospitalized patients.

The cumulative findings from the above studies indicate that dangerousness is a significant determinant of emergency disposition. Gerson and Bassuk (1980) suggest, however, that dangerousness is confounded as a determinant of admission because it is also the chief legal condition of commitment. They propose that an analysis of patient characteristics between those involuntarily hospitalized and

those voluntarily hospitalized would help resolve the issue (Gerson & Bassuk, 1980). Krohn and Akers (1977) studied differences in the determinants of admission for voluntary and involuntary patients, but dangerousness was not included as a variable.

Summary of research on patient variables. To summarize the research on patient variables as determinants of emergency dispositional decision-making: age, sex, marital status, socioeconomic status, and diagnosis do not appear to be significant determinants of hospitalization. Severity of psychopathology, symptoms, previous psychiatric history, and dangerousness appear to be significant predictors of hospitalization, according to the studies reviewed.

In their review, Krohn and Akers (1977) come to a different conclusion, stating:

Although methodological and conceptual inadequacies compromise our confidence in them, the research findings are that decisions about admitting and releasing mental patients are related to extra-psychiatric variables, such as class, family influence, marital status, legal status, and challenges to psychiatric decisions, even when judgments of the nature and severity of psychiatric disorder are controlled. (p. 355)

Family variables will be covered later in this review; legal factors were not included in any of the studies included in this review. In addition, this review covers only studies related to emergency room disposition and not studies related to length of stay or release from hospitalization. Krohn and Akers' (1977) strongest findings appear to come from studies of discharge of mental patients, rather than studies of admission. In their section on voluntary admission, they state:

"studies of the admission of voluntary patients provide highly ambiguous findings on the relative importance of psychiatric and social variables" (p. 350). This statement is more in keeping with the findings of this review.

In addition, Krohn and Akers (1977) compared findings for voluntary patients with findings for involuntary patients, and found legal status to be a critical intervening variable. For example, admission to hospital treatment was found to be positively related to social class and marital status among voluntary patients and negatively related to class, race, and marital status among involuntary patients (Krohn & Akers, 1977). It seems important for future studies to specify the legal status of patients hospitalized from the emergency room, given the apparent importance of this variable.

Despite the findings of many studies in which some of the above variables were found to be significant determinants of emergency decision-making, most studies predict very little of the variance in dispositions. As Scheff (1978) states: "the major finding is the inability to account for most of the variance in the decision to hospitalize" (p. 1350). In the next section, studies in which the availability of social supports and the importance of the significant other were addressed as potential determinants of emergency room disposition will be reviewed.

Significant Other Variables

In their review of the literature on psychiatric emergencies,

Gerson and Bassuk (1980) state: "the availability of family, peers, and community social supports has consistently been found to be an important determinant of emergency dispositional decisions." Miller (1968) has pointed out the importance of assessing social supports during the emergency stage of contact, introducing the concept "ecological group." The ecological group includes the patient and those people in his environment who provide important sources of gratification and control (Miller, 1968). Miller (1968) sees ecological group members as playing an important part in the development of an emergency, stating "in many cases, the emergency is more that of an unstable social system than that of an unstable person. . . in such situations, to consider only the identified patient and his needs would be to miss important dynamic aspects of the emergency" (p. 89). Unfortunately, there is a great deal of variation in the extent to which the patient's social system is assessed in emergency room settings and in studies of emergency dispositions.

Mendel and Rapport (1969) found that the variables most predictive of the decision to admit included the presence of support resources such as family and friends. They assessed the availability of ten possible social resources, and reported that as the number of support resources increased, the percentage of patients hospitalized significantly decreased (Mendel & Rapport, 1969). Gerson (1978) also reported that hospitalized patients are more likely to have fewer social supports than non-hospitalized patients. Gerson and Bassuk (1980) reported that when interviewers were asked about the

influence of support resources, they stated that a significant proportion of the patients they hospitalized would have been referred elsewhere if their social situations had been different.

In addition to the presence of social resources, several studies have assessed the willingness of social resources to offer support to the patient. In Tischler's (1966) study, 64% of the patients interviewed in the emergency room were accompanied by their families and residents contacted an additional 19%. In transactions which ended with the patient being hospitalized, in which family were involved, 71% of families were perceived as wanting the patient hospitalized; on the other hand, 87% of families of non-hospitalized patients were perceived by residents as wanting the patient returned home. Thus, the majority of transactions between residents and family were complementary. Tischler (1966) analyzed the extent to which residents modified their decisions after conferring with family members, especially in non-hospitalized patients presenting with severe pathology. In such cases, the modified disposition, i.e., not to hospitalize the patient, was rationalized as follows: "by expressing the wish to have the patient returned home, families became potential sources of external support and control" (p. 77).

Patients who presented with severe psychopathology but who were not hospitalized following a family conference also were characterized as communicating willingness to enter into a psychotherapeutic relationship with the resident and as interacting with the resident

in a complementary fashion. It was felt that these factors, in addition to the family's desire to keep the patient home, argued in favor of an outpatient disposition (Tischler, 1966).

Patients who were hospitalized in the absence of severe psychopathology after the resident conferred with the family were not considered to have psychotherapeutic potential and their families did not want them returned home. The modified disposition, i.e., to hospitalize the patient, was rationalized as follows: "thus, there was not external agent to counterbalance psychopathological forces or to support flagging internal controls" (Tischler, 1966, p. 77). The major problem with Tischler's study and the interpretations of the impact of family involvement is that there was no assessment of psychopathology in the family system itself. It is not clear whether family wishes for the patient were determined by legitimate concerns for the patient's welfare, pathological family configurations, or phenomena such as extrusions or symbiosis (Tischler, 1966). No studies are available in which family assessment as well as individual assessment was conducted during an emergency room episode.

Some interest has been expressed in the psychotherapeutic relationship as a significant other relationship which could provoke an emergency. Miller (1968) suggested that crises in treatment relationships that are important in provoking psychiatric emergencies can be categorized as the beginning treatment crisis, the middle treatment separation crisis, and the end of treatment separation

crisis. Kass, Karasu, and Walsh (1979) have suggested that emergency room staff have difficulty assessing thoroughly the treatment relationship and offering consultation to emergency room patients in concurrent psychotherapy. Their impression is that "residents tend to either deny difficulties which may exist in the treatment or to participate with the patient in an unproductive blaming of the patient's therapist" (Kass, Karasu, & Walsh, 1979, p. 91). In their study, they found 36 out of 100 patients interviewed in the emergency room to be in concurrent psychiatric treatment. Problems in the treatment fell into the following categories: 1. patients experiencing strong negative feelings toward their therapists; 2. therapists' negative feelings toward the patient; 3. patients having difficulty making requests for help of their own therapists, often experiencing medication side effects; and 4. patients beginning treatment who were having difficulty communicating their needs to their therapist (Kass, Karasu, & Walsh, 1979). In those cases, the authors suggest the involvement of the therapist in the disposition, just as one would involve the patient's family.

It is clear from the literature reviewed that the availability and capacity of the patient's support system, including both family members, friends, and therapists, plays an extremely important role in both the provoking of and resolution of a psychiatric emergency. It is evident that future studies need to assess more thoroughly the possibility of system pathology in addition to individual pathology in emergency situations.

Therapist Variables

As Gerson and Bassuk (1980) point out in their review, research on the role of therapist factors in emergency decision-making is almost non-existent in the literature on psychiatric emergencies. They suggest that this deficiency is similar to the lack of attention paid to therapist variability in the early stages of psychotherapy outcome research, which was called the "therapist uniformity" assumption by Kiesler (1966, cited in Gerson & Bassuk, 1980). Those studies which have looked at therapist variables in emergency decision-making have focused mainly on factors such as professional discipline and level of experience.

Mendal and Rapport (1969) found that among the variables most predictive of the decision to admit were the occupational status and experience of the psychiatric worker making the admission decision. In their study, the less experienced workers were more likely to admit patients; psychiatrists were less likely than psychologists and more likely than social workers to admit (Mendel & Rapport, 1969). Feigelson (1978), in a study of four Manhattan hospital emergency rooms, found the facility performing the evaluation to account for a significant proportion of the variance in the decision to admit. One of the factors discriminating between facilities was the presence of attending physicians instead of residents; hospitalization rates were lower in facilities where physicians conducted the evaluations (Feigelson, 1978). Baxter, Chodorkoff, and Underhill (1968) also found hospitalization referrals to decrease in frequency as the

clinician's level of experience increases. Gauron and Dickenson (1966) compared first-year residents with staff psychiatrists on making diagnostic formulations; in their study, first-year residents required the least amount of information about the patient and were the most quick to jump to conclusions that were not firmly established.

There is some evidence indicating that the attitude of the emergency room therapist exerts influence on dispositional decisions. Krystal (1968) suggested that the extent to which an emergency room interviewer sees his role as a therapeutic rather than sorting role is a measure of his ability to render the greatest possible help. The question "to admit or not to admit" becomes dominant, he feels, when the emergency role is seen as other than emergency psychotherapy (Krystal, 1968). The only study found which actually studies interviewer attitudes as factors in decision-making was Etcheverry (1977). In his study, evaluator treatment decisions were found to be greatly influenced by their attitudes about the quality of the hospitals to which patients were referred. Interviewers with less favorable attitudes toward the state hospital hospitalized less patients, regardless of professional discipline or level of experience. Etcheverry (1977) suggests that this finding could mean that such interviewers were more motivated to locate treatment resources alternative to hospitalization. There is clearly a great deal of variability in therapist hospitalization rates, but few studies explore which therapist factors account for this variability.

Gerson and Bassuk (1980) suggest that differences in the empathic capacities of emergency room therapists, which has been shown to be a major correlate of effective therapy, may be reflected in the dispositional decisions they make. Gerson (1978), in a study of the psychiatric emergency service of Beth Israel Hospital, found major differences in emergency room therapists' ability to engage in positively-toned interactions with their patients. Therapists rated low on this ability hospitalized a larger percentage of their patients than would be expected on the basis on the clinical data. A multiple correlation of .78 was found for therapist hospitalization rate when all variables were combined; the therapist's ability to form a positive relationship with the patient accounted for the major portion of the variance.

As Gerson and Bassuk (1980) point out, research from other areas indicates the presence of stable response styles in individuals which operate independently of stimulus conditions; in addition, these response biases have been found to affect information processing, clinical judgment, clinical interventions, and treatment recommendations. They suggest that future research should focus on the manner in which stable therapist personality characteristics influence emergency dispositions; and on the process by which an empathic stance relative to the patient is reflected in emergency dispositions.

Patient-Therapist Relationship Variables

Research on the psychotherapeutic process is continuously

pointing out that the emotional quality of the relationship between therapist and patient is of major importance in predicting outcome, as well as being a major determinant of clinical judgments (Gerson & Bassuk, 1980). Research on psychiatric emergencies largely excludes patient-therapist relationship variables; however, several studies have investigated the effect of affective congruence and the patient's judged capacity for psychotherapy on emergency dispositions.

Gerson and Bassuk (1980) define affective congruence as the therapist's emotional response to the patient. In their review, they concluded that the therapist's emotional responses to the patient do have an impact on dispositional decisions (Gerson & Bassuk, 1980). For example, Baxter, Chodorkoff, and Underhill (1968) found that residents were more likely to admit patients from the emergency room if they found the patient to be interesting or if they felt that the patient had insight into his problems. Patients who are thought to be interesting and likeable are also more likely to be offered outpatient treatment by the residents who see them in the emergency room than patients who are considered uninteresting or who are not liked (Gerson & Bassuk, 1980).

Although there is little research on the effect of therapist emotional response to emergency room dispositions, many studies have described the variety of emotional responses elicited by various types of patients. Therapists have been observed to react with hostility and rejection to alcoholic patients, male patients displaying passive

and clinging behavior, patients who are perceived as manipulative and help-rejecting, and patients who have a history of repeated emergency room use (Gerson & Bassuk, 1980). Patients who are violent or suicidal tend to provoke feelings of helplessness, aversion, and hate in their therapists (Gerson & Bassuk, 1980). Commenting on the above findings, Mendel and Rapport (1969) conclude: "it becomes quite clear that the attitudes of decision-makers toward the patients as people and illness have a profound, albeit covert, influence on their decision for or against hospitalization" (p. 327).

Patient's capacity for psychotherapy has been studied as a potential determinant of admission in several studies. It has tended to be viewed as an objective factor (e.g., by Tischler, 1966) in decision-making; however, Gerson and Bassuk (1980) suggest that this variable is intertwined with the therapist's emotional response to the patient and is another measure of the patient-therapist relationship.

There is only one study available in which ratings of the capacity of the patient to engage in and profit from psychotherapy were studied as determinants of emergency room disposition. Tischler (1966), using a three-point measure of capacity for psychotherapy, found that patients who were judged to be better psychotherapy candidates were the most likely to be referred for treatment to the resident himself on an outpatient basis. Patients judged to be better candidates for psychotherapy were also found to be more likeable

and interesting, more friendly and more cooperative (Tischler, 1966). Again, it appears that emotional congruence in the therapist-patient interaction may have influenced significantly resident's judgments of the patient's capacity for psychotherapy. Tischler (1966) refers to this phenomenon as "mutuality", including both a rational factor, i.e., the capacity and readiness of both parties to communicate and negotiate, and a less rational factor, i.e., empathy.

In Tischler's (1966) study, residents were more willing to treat a patient on an outpatient basis who was judged to be a good candidate for psychotherapy, even if the severity of symptomatology indicated hospitalization, than other types of patients. This finding was explained in terms of a firm alliance between patient and therapist, in which "the patient might be both willing and able to enter into a working relationship; the resident was placed in a position where he could exert therapeutic leverage to counterbalance psychological forces" (Tischler, 1966, p. 77).

Patient social class has been shown to influence judgments of capacity for psychotherapy; in emergency room settings, emergency room therapists have been shown to assume that lower class patients are unable to participate in verbal psychotherapy (Gerson & Bassuk, 1980). This phenomenon is generally labelled social class bias; however, others have given alternate explanations for the negative reactions of therapists to lower class emergency room patients. Coleman and Errera (1963, cited in Gerson & Bassuk, 1980) state that



the problem is these patients' attitudes toward authority, such that the authority aspects of the therapist's role are not accepted, jeopardizing the therapist's sense of professional security. Other studies have found that accepting a patient role and affirming the therapist's competency are factors positively associated with positive therapist attitude toward the patient and positive clinical status (Gerson & Bassuk, 1980).

Gerson and Bassuk (1980) conclude that, regardless of other explanations, "social distance between the patient and therapist is a covert yet powerful contributor to the emotional climate of the therapeutic interaction" (p. 8). They underscore the importance of identifying influences on the treatment of emergency psychiatric patients, particularly those involving patient-therapist interaction, so that therapists can develop the capacity to make rational and informed clinical decisions (Gerson & Bassuk, 1980).

Summary of Literature Review

Several categories of variables with potential for impact on decision-making in psychiatric emergencies have been reviewed in the above literature review, including system, patient, significant other, therapist, and patient-therapist interaction variables. System variables which have been found to impact on emergency psychiatric treatment decisions include time pressure, the emergency patient's communicated sense of urgency, the tendency to focus on pathognomonic indicators in decision-making to the exclusion of other important

factors, the impersonal atmosphere of the emergency room, legal and ethical pressures on therapists, the tendency toward disorganized helping responses to the patient in crisis, and the therapist's affective response to the pressure and atmosphere of the emergency room. In addition, there is some evidence which suggests that the treatment philosophy of the emergency room, such as the extent to which crisis intervention programs are available rather than evaluation/disposition services only, is an important variable related to disposition.

Patient variables, categorized as demographic and clinical status variables, are relatively good predictors of emergency disposition. The studies reviewed provided evidence for clinical status variables, in particular, severity of psychopathology, symptoms, previous psychiatric history and dangerousness, as significant predictors of hospitalization. Patient demographic variables such as age, socioeconomic status, sex, and marital status do not appear to be significant predictors of hospitalization. Despite the findings of the many studies in which the above variables were found to be significant determinants of emergency decision-making, most studies predict very little of the variance in dispositions.

With regard to the impact of significant other variables on emergency disposition, the literature is sparse. Those studies reviewed supported the idea that the availability and capacity of the patient's support system, including family members, friends, and

therapists, plays an extremely important role in both the provoking of and resolution of a psychiatric emergency. It was clear that future studies need to assess more thoroughly the possibility of system pathology in addition to individual pathology in emergency situations.

Research on the role of therapist and patient-therapist interaction variables in emergency decision-making is almost non-existent in the literature on psychiatric emergencies. The one clear finding is that there is a great deal of variability in therapist hospitalization rates, but few studies explore which therapist factors account for this variability. Future research should focus on the manner in which therapist personality characteristics influence emergency dispositions and on the importance of therapist empathy in the process of emergency dispositions.

Those studies which have been undertaken in psychiatric emergency facilities have investigated, for the most part, the determinants of the decision to hospitalize or not to hospitalize the patient from the emergency room. Relatively little data is available, however, to assess the validity of these decisions, such as follow-up studies of patients discharged from the emergency room or hospitalized from the emergency room. In addition, few studies are available which have taken the complexity of decision-making in psychiatric emergencies into account by systematically including system, patient, significant other, therapist, and patient-therapist interaction variables as potential determinants of emergency disposition.

The purpose of this study is to investigate the process of decision-making in psychiatric emergencies, using the emergency service of Ravenswood Hospital Community Mental Health Center as the source of data. More specifically, the study has two aims: 1. to determine which factors are related to dispositions made in psychiatric emergencies at Ravenswood Hospital and to compare these factors to those identified in other studies; and 2. to assess the validity of these dispositions by conducting a follow-up study of patients utilizing the psychiatric emergency service, using self-report data from patients and their significant others.

On the basis of the literature review, it is expected that clinical variables such as severity of psychopathology, dangerousness, previous psychiatric history, and level of functioning will be better predictors of emergency disposition than demographic variables such as age, sex, race, and socioeconomic status. More specifically, it is expected that clinical variables will be better predictors of the decision to hospitalize the patient from the emergency room than demographic variables. In this study, the influence of significant other, therapist, and patient-therapist interaction variables on emergency disposition cannot be assessed due to lack of data.

Assessment of the validity of the disposition to inpatient or outpatient psychiatric treatment following an emergency room visit will be conducted in two stages. First, staff on the inpatient units

utilized in this study will be asked if, in their opinion, the decision to hospitalize the patient was appropriate. Second, patients who were referred to outpatient treatment and their significant others will be interviewed on the phone by a crisis worker three to five days following their emergency room visit. It is expected that if the disposition was appropriate, there will be no significant exacerbation of the patient's condition between the time of the emergency room visit and the time of follow-up.

One problem involved in conducting a study such as this one is the difficulty locating patients after they leave the emergency room. A substantial proportion of patients either refuse to give consent for follow-up or cannot be reached at the time of follow-up. It is expected that the population of patients who are available for follow-up differ from the population of patients who are not available for follow-up, i.e., that drop-out between initial contact and follow-up is not random. No specific differences between the two populations are hypothesized.

METHOD

Subjects

The Ravenswood Hospital Community Mental Health Center Off-hours Crisis Service provides emergency mental health services to the community between the hours of 6 p.m. and 10 a.m. Monday through Friday and on a 24-hour basis on Saturday and Sunday. The offhours crisis service provides both a call-in service and on-site consultation to the Emergency Room and Trauma Unit of the hospital. The offhours crisis workers are mostly bachelor level in education and are specifically trained for crisis work. They are the patient's initial mental health contact in the hospital. The crisis worker's task is to evaluate the nature of the emergency, and to make a disposition on the basis of this assessment. Dispositions available include: (1) hospitalization on the hospital's inpatient psychiatric unit; (2) crisis intervention with a therapist from the mental health center; (3) outpatient psychotherapy in the mental health center; (4) referral to another inpatient psychiatric unit such as Chicago Read Mental Health Center or Illinois Masonic Hospital; (5) referral to another outpatient mental health center; (6) referral to a substance abuse program; and (7) medical referral. The crisis service often provides assistance with housing/financial issues as well as with the immediate psychiatric emergency.

Data were collected during the spring and summer months of 1979, from mid-April to mid-August. During that time period 167 patients came to the Emergency Room or Trauma Unit and were seen by offhours crisis workers. Data were collected on all 167 patients. The source of the data was the regular medical records of the CMHC, part of basic information management system of the CMHC. The sample characteristics are summarized in Table 1.

To summarize the sample briefly, it could best be described as adult, white, and unattached. Although almost two-thirds of the sample is unemployed, the education level is high. Eighty-five percent of the patients reported having at least a high school degree, with close to twenty percent having gone beyond high school. In general, the offhours crisis patient has already been a significant user of the mental health system, nearly two-thirds having had outpatient mental health experience and more than fifty-five percent having had previous inpatient experience.

Out of the 167 patients in the study, 45 were hospitalized following their emergency room visit; the remaining 122 were not hospitalized and were given a variety of outpatient referrals. The hospitalized patients were not contacted for follow-up, since our major concern was in detecting any "false negatives," i.e., patients who were in need of hospitalization but were not hospitalized following their emergency room visit. Inpatient staff were contacted, however, and asked if these 45 patients represented appropriate

Table 1
Patient Sample Characteristics

<u>Sex</u>		<u>Age</u>		<u>Race</u>		<u>Marital Status</u>	
Male	45.4%	Under 18	12%	White	83%	Married	18%
Female	54.5%	18-30	42%	Latino	7%	Single	60%
		31-50	37%	Black	4%	Divorced	16%
		Over 50	9%	Oriental	1%	Separated	3%
				Other	5%	Widowed	3%

<u>Number in Hosehold</u>		<u>Employment Status</u>		<u>Education</u>	
One	25%	Full	21%	Under 12	14%
Two	32%	Part	5%	12 (H.S.)	68%
More Than Two	43%	Unemployed	65%	Over 12	18%
		Other	5%		
		Unknown	3%		

<u>Previous Outpatient MH Experience</u>		<u>Previous Inpatient MH Experience</u>	
Yes	62%	Yes	56%
No	38%	No	44%

<u>Level of Functioning</u>		<u>Suicidal Potential</u>		<u>Homicidal Potential</u>	
2	5%	None	31%	None	61%
3	10%	Minimal	50%	Minimal	28%
4	12%	Moderate	13%	Moderate	9%
5	30%	Extreme	6%	Extreme	2%
6	19%				
7	21%				
8	3%				
9	1%				

admissions.

Of the 122 non-hospitalized patients, 66 were contacted to obtain follow-up data. In 24 of these 66 cases, only the patient was reached; in 16 cases, only the significant other was reached; in 26 cases, both the patient and the significant other were contacted. Fifty-six of the 122 non-hospitalized patients either refused to consent to follow-up or could not be reached by telephone.

There are several characteristics of the sample which limit the generalizability of this study. First, data were collected only during the summer months. Whether a sample presenting at the hospital in the winter months would be significantly different from the current sample is not known. Second, the sample is mainly white. While this is characteristic of the catchment area served by Ravenswood Hospital Community Mental Health Center, it limits the study's generalizability to other psychiatric emergency facilities. Third, the follow-up data were not complete for all 167 patients in the study. In the non-hospitalized group in particular, the possibility of non-random drop-out between the time of the emergency room visit and the time of follow-up must be examined. In addition, there are few matched patient-significant other pairs in the follow-up data. Data analysis will determine whether these pairs can be considered to be representative of the non-hospitalized patient group.

Measures

Emergency room data. All measures used in the study are part of the basic information management system of the mental health center. For the purposes of the study, crisis workers were asked to summarize the data collected on an Emergency Room Summary Sheet (see Appendix A). The summary sheet contains the following information: name, age, sex, race, marital status, educational level, number in household, employment status, previous hospitalizations, previous outpatient treatment, diagnosis, level of functioning, suicide risk, homicide risk, disposition, problem list and problem severity. Diagnosis was made according to the DSMII Diagnostic Manual. Level of Functioning is rated on a scale from 1-9 on the basis of four areas: 1. personal self-care; 2. vocational capability; 3. ability to function in the family and interpersonal realm; and 4. degree of symptomatology (see Appendix B).

Suicide and homicide risk are rated on a scale from 0-3, i.e., none, minimal, moderate, and extreme. The problem list was obtained by choosing the four most severe problems listed for each patient from the RHCMHC Computerized Problem List. The problem list covers problems in thirteen general areas, ranging from problems in affective functioning to financial and legal problems. Each problem is rated in severity on a scale from 1 to 5, mild to very severe.

Follow-up data. Two questionnaires were utilized to obtain follow-up data. The Ravenswood 7W staff questionnaire (see Appendix

C) was used to ask if they felt that hospitalization was appropriate for the patient following the emergency room visit. The same questionnaire was sent to Chicago-Read Mental Health Center for those patients sent there following the emergency room visit. In the questionnaire, staff were asked to give reasons if they felt the hospitalization was not appropriate. No further follow-up data was obtained for this group of patients.

Patients who were not hospitalized, and who gave consent for follow-up, were administered the Postmeasure Evaluation questionnaire (see Appendix D) over the telephone by a crisis worker. The questionnaire asks the patient to state how troublesome each of the problems noted at the emergency room visit are for them at the present time. Second, the questionnaire asks four questions of the patient, from which the crisis worker obtains a level of functioning rating. The rating ranges from 1-9; it is obtained by summing the ratings for each of the four areas. Third, the patient is asked if any of a list of critical incidents occurred since the emergency room visit. The patient is then asked to rate his satisfaction with the emergency room service on a scale of 1-4, not at all satisfied to extremely satisfied; he is asked if he feels that he should have been hospitalized, if he has contacted any other mental health facility since the emergency room visit, and if the crisis worker referred him to any other mental health facility during the emergency room visit. When consent was obtained for a significant other to be contacted, the same questionnaire was administered.

Procedure

One hundred sixty-seven consecutive admissions to the Emergency Room and Trauma Unit of the hospital, for whom crisis consultation was requested during offhours, participated in the study. Data were collected on all 167 patients. For patients who came more than once ($n = 12$) during the period of the study, one visit was randomly selected and included in this study.

Each patient went through the standard crisis consultation procedure, which consists of assessment and disposition by the crisis worker on call. All assessment/disposition data are recorded on computerized forms and stored in the Ravenswood Hospital Community Mental Health Center data bank. For the purposes of this study, crisis workers were asked to summarize the data collected on the emergency room summary sheet.

For patients who were hospitalized, the psychiatric ward staff were asked to fill out a questionnaire as to the appropriateness of the hospitalization. Patients who were not hospitalized were asked to fill out an informed consent form allowing Ravenswood Hospital to contact them about their treatment. The form contains a space for the name of a significant other to be contacted, if the patient is willing. Those patients who gave consent, as well as significant others for whom consent was obtained, were contacted by phone 3-5 days following their emergency room visit by a crisis worker and administered the Postmeasure Evaluation questionnaire.

RESULTS

Determinants of the Decision to Hospitalize

To determine which factors were related to the decision to hospitalize the patient following the emergency room visit, two analyses were used. For variables measured at the interval level, discriminant analysis was used; for variables measured at the nominal level, chi-square analysis was used. The discriminant analysis was carried out using two groups, hospitalized ($n = 45$) and not hospitalized ($n = 122$) patients. Variables included in the analysis were age, level of functioning, marital status, number in household, suicide risk, homicide risk, previous inpatient treatment, previous outpatient treatment, average severity of presenting problems, years of education, and employment status. All 167 cases were used in the analysis. Variables used in the chi-square analysis included all of the above, in addition to race, sex, and therapist making the decision.

The method of discriminant analysis was stepwise Wilk's analysis; i.e., variables which minimized Wilk's lambda were selected for inclusion. The sample distribution of cases was taken as an estimate of the population distribution; the prior probabilities were then set of 0.27 (prior probability of being hospitalized) and 0.73 (prior probability of not being hospitalized) rather than

assuming equal likelihood of belonging to either group.

Table 2 summarizes the results of the discriminant analysis, showing Wilk's lambda and significance levels for selected variables. From Table 2 it can be seen that six out of the original 11 variables were selected before subtractions from Wilk's lambda became nonsignificant. Of the six variables, suicide risk, level of functioning, homicide risk, and average severity of presenting problems had more discriminating power than previous inpatient treatment and years of education. The latter two variables added very little discriminating power to the function as shown by the very small changes in Wilk's lambda at their entry.

Table 3 gives the standardized canonical discriminant function coefficients for the six variables. As seen in Table 3, suicide risk clearly contributes the most to the discriminant function, followed by level of functioning, average severity rating, homicide risk, and previous inpatient treatment; years of education contributes the least to the discriminant function. As shown in Table 4, the six variables produced a fairly high degree of separation, indicated by an eigenvalue of 0.91, a canonical correlation of 0.69 for the function and the final Wilk's lambda of 0.52. The associated chi-square ($\chi^2(6) = 104.46$, $p < .001$) indicates that the amount of discriminating information contained in the function is statistically significant.

As a further test of the effectiveness of the discriminant

Table 2

Summary Table of Stepwise Wilk's Discriminant Analysis: Hospitalized
vs. Non-Hospitalized Groups

Step	Wilk's lambda	Significance level
1 Suicide risk	0.73	0.001
2 Level of functioning	0.60	0.001
3 Homicide risk	0.57	0.001
4 Average severity of problems	0.54	0.001
5 Previous inpatient treatment	0.53	0.001
6 Education	0.52	0.001

Table 3

Standardized Canonical Discriminant Function Coefficients

Variable	Function I
Level of functioning	-0.45
Average severity of problems	0.31
Suicide risk	0.50
Homicide risk	0.29
Previous inpatient treatment	-0.24
Education	0.15

Table 4

Discriminating Power of the Function

<u>Function</u>	<u>Eigenvalue</u>	<u>Percent of variance</u>	<u>Cumulative percent</u>	<u>Wilk's lambda</u>
1	0.91	100.00	100.00	0.52
	<u>Canonical correlation</u>	<u>Chi-square</u>	<u>df</u>	<u>Significance</u>
	0.69	104.46	6	0.00

function in separating hospitalized from non-hospitalized patients, cases were classified into the two groups according to their discriminant scores. Using this technique, 91.02% of the cases were correctly classified. Table 5 gives the classification results. Figure 1 presents a histogram of the distribution of the cases along the discriminant function. Results of the discriminant analysis support the hypothesis that the clinical variables used in the study are more predictive of the decision to hospitalize the patient from the emergency room than the demographic variables.

Chi-square analysis was also utilized to determine how strongly the clinical and demographic variables were related to the decision to hospitalize, since not all of the variables used in the study met the criterion for discriminant analysis (i.e., measurement at the interval level). The following variables were not shown to be associated with hospitalization: sex, race, age, marital status, years of education, number in household, employment status, previous outpatient treatment, and the therapist making the decision.

Variables significantly associated with hospitalization were: previous inpatient treatment ($\chi^2(2) = 6.10$, $p < .05$), level of functioning ($\chi^2(7) = 65.08$, $p < .001$), suicide risk ($\chi^2(3) = 56.67$, $p < .001$), homicide risk ($\chi^2(3) = 35.62$, $p < .001$), and average severity of presenting problems ($\chi^2(8) = 44.26$, $p < .001$).

The chi-square analyses generally support the results of the discriminant analysis. That is, clinical variables (level of

Table 5
 Classification Results for Hospitalized
 and Non-hospitalized Groups

Actual group <u>n</u> of cases	Predicted group membership	
	1	2
Group 1 45 Hospitalized	33 73.3%	12 26.7%
Group 2 122 Non-hospitalized	3 2.5%	119 97.5%

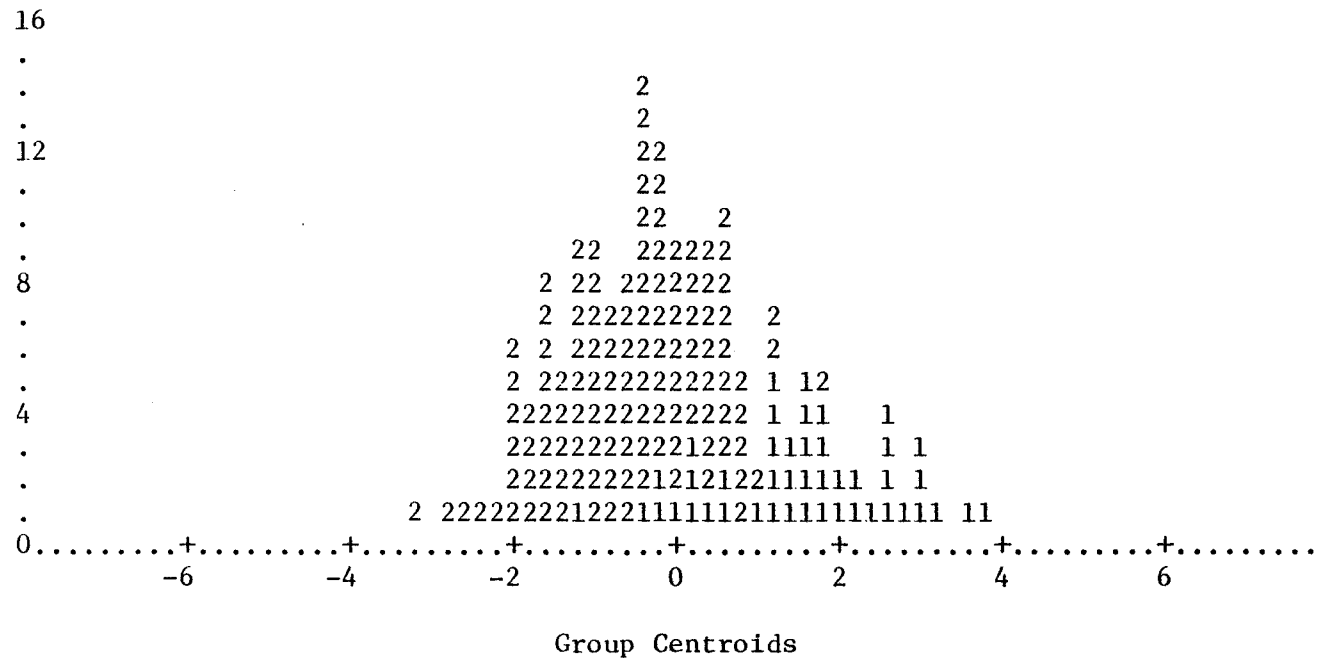


Figure 1. Histogram of Cases According to Group Centroid Scores

Note. Hospitalized patients are indicated by the number 1; Non-hospitalized patients are indicated by the number 2.

functioning, suicide risk, homicide risk, average severity of problems, and previous treatment history) are related significantly to the decision to hospitalize whereas the demographic variables (sex, age, marital status, employment, number in household, race, years of education) were not significantly related. One demographic variable, employment, did appear in the discriminant analysis; however, it accounted for a very small change in Wilk's lambda and was the least important variable in the discriminant function. An important result of the chi-square analysis was that the decision to hospitalize was not shown to be related to the person making the decision; i.e., the therapist. All the therapists in the study had similar hospitalization rates.

Appropriateness of the Decision to Hospitalize the Patient

Inpatient staff self-report data. Frequency data were obtained from questionnaires given to staff about hospitalized patients. Out of the 45 patients who were hospitalized following their emergency room visit, 26 were admitted to Ravenswood Hospital's inpatient unit, 11 were admitted to Chicago-Read's inpatient unit, and nine were hospitalized elsewhere. Data are missing for those nine patients. For 21 of the 26 patients admitted to Ravenswood, staff rated the admission as appropriate and no further information was gathered. Staff were asked to give reasons for rating an admission as inappropriate. In one case, the reason given was "the patient's symptoms appeared mild enough for an alternative outpatient

intervention." For the other four of five patients rated as inappropriate admissions, the reason given for judging the admission to be inappropriate was that the patient had a history of frequent hospitalizations. It is not clear why frequent hospitalization was considered to be a factor arguing against admission by the inpatient staff.

For the 11 patients referred for hospitalization at Chicago-Read, 10 of the 11 were considered appropriate referrals and were hospitalized. The eleventh patient refused hospitalization after arriving at Chicago-Read and was not considered committable, i.e., did not meet the criteria for involuntary admission.

Self-report follow-up data for non-hospitalized patients and significant others. It was hypothesized that if the disposition was appropriate, i.e., not to hospitalize the patient, there would be no significant exacerbation of the patient's condition between the time of the emergency room visit and the time of follow-up contact. Out of the 122 patients who were not hospitalized, 66 patients and/or significant others were available for follow-up; 56 patients and/or significant others could not be contacted for follow-up. Follow-up data were obtained for 54% of the non-hospitalized patients.

In order to determine whether the data obtained were representative of the non-hospitalized group of patients, discriminant and chi-square analyses were performed for all pretest variables between

the two groups, non-hospitalized follow-up patients ($n = 66$) and non-hospitalized, no follow-up patients ($n = 56$), with the hypothesis that these two groups would differ. Variables included in the discriminant analysis were: age, level of functioning, marital status, number in household, suicide risk, homicide risk, previous inpatient treatment, previous outpatient treatment, average severity rating of presenting problems, years of education, and employment status. The method of discriminant analysis was stepwise Wilk's analysis. Table 6 summarizes the results of the discriminant analysis, showing Wilk's lambda and significance levels for the variables entered.

Five of the eleven variables were selected before changes in Wilk's lambda became non-significant. None of the five variables had much discriminating power, shown by the large values of Wilk's lambda. The eigenvalue for the function was extremely small (0.10), the canonical correlation was 0.31, and the final Wilk's lambda was very large (0.91), indicating that the five variables do not provide much separation between the two groups. The associated chi-square was small but statistically significant ($\chi^2(5) = 11.61, p < .04$). When the cases were classified into two groups according to their discriminant scores, only 61.48% of the cases were correctly classified. Table 7 gives the classification results.

Chi-square analysis was also utilized to determine how strongly the clinical and demographic variables were associated with follow-up

Table 6
Summary Table of Stepwise Wilk's Discriminant Analysis
Follow-Up Groups

<u>Step</u>	<u>Wilk's lambda</u>	<u>Significance Level</u>
1 Previous outpatient treatment	0.97	0.05
2 Average severity of problems	0.94	0.03
3 Client age	0.93	0.03
4 Level of functioning	0.92	0.03
5 Employment	0.91	0.04

Table 7
Classification Results for Follow-Up Groups

Actual Group	<u>n</u> of Cases	Predicted group membership	
		1	2
Group 1 Follow-up	66	40 60.6%	26 39.4%
Group 2 No follow-up	56	21 37.5%	35 62.5%

status, i.e., available for follow-up contact and not available for follow-up contact. None of the following variables were shown to be associated with follow-up status: sex, race, marital status, years of education, number in household, employment, level of functioning, suicide risk, homicide risk, average severity of presenting problems, or therapist making the disposition.

Variables associated with follow-up status were age ($\chi^2(3) = 9.04$, $p < .03$), previous inpatient treatment ($\chi^2(2) = 4.89$, $p < .09$), and previous outpatient treatment ($\chi^2(2) = 6.62$, $p < .04$). The difference in the age variable was found in the under 18 age group; ninety-two percent ($n = 12$) of minors were available for follow-up, compared to eight percent ($n = 1$) not available for follow-up. All of the cases included follow-up contact with the minor's parents. There were no consistent differences in any other age group in follow-up status.

Patients who could not be reached for follow-up were more likely to have a history of outpatient treatment, 69.4% ($n = 39$) compared to 50% ($n = 33$) of patients available for follow-up. Twenty-eight percent ($n = 16$) of no follow-up patients as compared to 50% ($n = 33$) of follow-up patients had no previous outpatient treatment. The same finding applies to the previous inpatient history variable between the two groups. Fifty-nine percent ($n = 33$) of the no follow-up patients as compared to 42% ($n = 28$) of follow-up patients had a history of previous inpatient psychiatric treatment.

Neither analysis provided strong support for the hypothesis of significant differences between non-hospitalized patients who can be contacted for follow-up and those who cannot be reached for follow-up. The follow-up group can be considered to be representative of patients not hospitalized following the emergency room visit on the variables measured in this study. The positive relationship between previous treatment history and unavailability for follow-up is problematic. The relationship, although not highly significant, suggests that data may be lacking for what could be more frequent or chronic utilizers of mental health services.

To determine whether there was any significant exacerbation of the non-hospitalized patient's condition between the time of the emergency room visit and the time of follow-up contact, a repeated measures t-test was performed for the following variables: severity rating of the first presenting problem, severity rating of the second presenting problem and level of functioning. Patients contacted for follow-up fall into three groups: patients only contacted for follow-up data, significant other not available (n = 24); significant other only contacted for follow-up data, patient not available (n = 16); and both patient and significant other contacted for follow-up data (n = 26). Table 8 lists the repeated measures t-test results across groups.

The t-test results show patients to rate both presenting problems as less severe at the time of follow-up and their level of

functioning as higher at the time of follow-up. Significant others also rated the patient's presenting problems as less severe at the time of follow-up and the patient's level of functioning as the same at the time of follow-up.

The hypothesis that there will be no significant exacerbation of the patient's condition between the time of the emergency room visit and the time of follow-up, assuming that the disposition was appropriate, is strongly supported by the t-test results. The results, in fact, indicate that a significant number of patients have improved level of functioning and decreased severity of problems at the time of follow-up. These findings suggest that the decision not to hospitalize a patient following the emergency room visit is valid in the majority of cases. In addition, the results suggest that the emergency room visit in itself could be considered to be a therapeutic intervention, given that most patients report improvement 3-5 days following the emergency room visit. Alternatively, the improvement may represent a statistical artifact, regression to the mean.

An additional area of interest in the follow-up data was the extent to which patients and their significant others agree about the severity of the patient's condition. Table 8 shows that there is no significant difference between the patient's rating of problem 1 severity and the significant other's rating of problem 1 severity at the time of follow-up, or in patient versus significant other ratings of level of functioning. There is a statistical trend for

Table 8

Repeated Measures t-test

Change in Ratings from Emergency Room Visit to Time of Follow-Up

Variable ^a	Number of Cases	Mean	Standard Deviation	Standard Error	t	df	2-Tail Prob- ability
Rate 1	44	4.00	0.75	0.11	5.79	43	.001
Prate 1		3.16	1.03	0.16			
Rate 2	48	3.48	0.71	0.10	6.11	47	.001
Prate 2		2.69	0.85	0.12			
LOF	49	5.73	1.33	0.91	-1.97	48	.05
PLOF		6.06	1.26	0.18			
Prate 1	22	3.04	0.95	0.20	0.25	21	.80
Orate 1		3.00	0.87	0.18			
Prate 2	24	2.46	0.72	0.15	-2.01	23	.06
Orate 2		2.66	0.87	0.18			
PLOF	23	5.87	1.29	0.27	0.33	22	.75
OLOF		5.83	1.27	0.26			
Rate 1	36	4.03	0.77	0.13	5.44	35	.001
Orate 1		3.22	0.87	0.14			
Rate 2	35	3.34	0.68	0.12	3.75	34	.001
Orate 2		2.74	0.92	0.15			

(continued)

Table 8 (continued)

Variable ^a	Number of Cases	Mean	Standard Deviation	Standard Error	t	df	2-Tail Prob- ability
LOF	39	5.77	1.22	0.19	0.01	38	1.00
OLOF		5.77	1.38	0.22			

^aRate 1,2 = severity ratings, problem 1,2, by the emergency room crisis worker at time of visit

Prate 1,2 = severity ratings, problem 1,2, by the patient, time of follow-up

Orate 1,2 = severity ratings, problem 1,2, by the significant other, follow-up

LOF = level of functioning, rated by emergency room crisis worker at time of visit

PLOF = level of functioning, rated by the patient, time of follow-up

OLOF = level of functioning, rated by the significant other, time of follow-up

a difference between patient and significant other ratings of problem 2 severity, significant others tending to rate the problem as somewhat more severe.

Patient Satisfaction with the Emergency Service and Disposition

Patients and their significant others were asked several questions at the time of follow-up in addition to problem severity rating and level of functioning. When asked to rate their satisfaction with the emergency room service from not at all satisfied to extremely satisfied, 10% of patients ($\underline{n} = 4$) and 3% of significant others ($\underline{n} = 1$) said that they were not at all satisfied with the emergency room experience; 17% of patients ($\underline{n} = 8$) and 11% of significant others ($\underline{n} = 4$) said they were somewhat satisfied; 19% of patients ($\underline{n} = 8$) and 38% of significant others ($\underline{n} = 14$) said they were satisfied; and 54% of patients ($\underline{n} = 26$) and 49% of significant others ($\underline{n} = 18$) said they were extremely satisfied with their Ravenswood Hospital Emergency Room experience.

Twenty-seven percent of patients ($\underline{n} = 13$) and 42% of significant others ($\underline{n} = 16$) said they thought the patient should have been hospitalized at the time of the emergency room visit; 73% of patients ($\underline{n} = 35$) and 58% of significant others ($\underline{n} = 22$) did not think the patient should have been hospitalized following the emergency room visit.

Forty-nine percent ($\underline{n} = 24$) of patients said that they had

contacted another mental health facility since the emergency room visit; 51% ($\underline{n} = 25$) had not contacted another facility. Seventy-three percent of patients ($\underline{n} = 35$) said that the crisis worker had referred them to another mental health facility at the time of the emergency room visit; 27% ($\underline{n} = 13$) said they had not been referred.

Forty-six percent ($\underline{n} = 17$) of significant others said that the patient had contacted another mental health facility since the emergency room visit; 54% ($\underline{n} = 20$) said the patient had not contacted another facility. Eighty-one percent ($\underline{n} = 25$) of significant others said the crisis worker had referred the patient to another mental health facility; 19% ($\underline{n} = 6$) said the patient had not been referred.

On the whole, results of the patient/significant other satisfaction ratings show that the majority of patients and their families are satisfied with their emergency room experience. However, the percentage of patient/significant other ratings of not at all satisfied to somewhat satisfied (28% of patients, $\underline{n} = 12$ and 14% of significant others, $\underline{n} = 5$) is high enough to suggest a problem in this area. This finding seems particularly important when added to the large percentages of patients (27%, $\underline{n} = 13$) and significant others (42%, $\underline{n} = 16$) who said they thought that the patient should have been hospitalized. These cases will be examined in the discussion section.

DISCUSSION

Determinants of the Decision to Hospitalize

The studies reviewed in the literature review provided evidence for clinical status variables, in particular, severity of psychopathology, symptoms, previous psychiatric history, and dangerousness as statistically significant predictors of hospitalization. Patient demographic variables such as age, sex, socioeconomic status and marital status did not appear as significant predictors of hospitalization. Despite the presence of statistically significant relationships between clinical status variables and hospitalization, however, the major finding of the literature review was that most studies fail to predict much of the variance in the decision to hospitalize a patient from the emergency room.

In this study, it was hypothesized that clinical variables such as severity of psychopathology, dangerousness, previous psychiatric history and level of functioning would be more highly associated with hospitalization than demographic variables. The results of discriminant and chi-square analyses provided strong support for the hypothesis. Variables which best discriminated between the hospitalized and non-hospitalized patients in this study were suicide risk, level of functioning, homicide risk, average severity of presenting problems, and previous inpatient psychiatric treatment. None of the

demographic variables used in this study were shown to be associated with hospitalization, except for education, which was selected as a variable in the Wilk's analysis. In addition to being statistically significant, the variables used in the stepwise Wilk's analysis contained considerable discriminating power. The discriminant function accounted for approximately 50% of the variance in the groups, producing a high degree of separation between the hospitalized and non-hospitalized patient groups.

When cases were classified according to their discriminant scores, 91% of cases were correctly classified as hospitalized or non-hospitalized patients. Cases which were not correctly classified were analyzed on an individual basis in order to determine which factors led crisis workers to vary from their usual criteria in making the disposition. In addition to the data collected in this study, many of the crisis workers wrote additional notes in the chart giving further information about the emergency situation. These notes were examined for all misclassified cases.

Most of the cases which varied from the disposition predicted by the discriminant analysis do not appear to represent serious errors in judgment on the part of crisis workers. The misclassifications were mostly "false positives," i.e., patients who were hospitalized with somewhat less severe symptomatology than other hospitalized patients. There were very few "false negatives," i.e., patients who met the predictor criteria for hospitalization but were

not hospitalized. In the crisis workers' notes, it was clear that the patient's family, if present, played a strong part in decision-making. For example, in some of the misclassified "false negatives," the presence of a supportive family system appeared to be used as a factor modifying a decision to hospitalize the patient. In other misclassified "false positives," the family's wish to have the patient hospitalized and their perception of the patient as deteriorating seemed to lead the crisis worker to recommend hospitalization with a somewhat milder symptom pattern. Other "false positives," despite being misclassified in the discriminant analysis, were judged to be appropriate admissions by the inpatient staff; individual case analysis uncovered no reasons to argue against the admission. In one or two cases, crisis workers made ratings on individual scales which were inconsistent with the total symptom picture. For example, in one "false positive" case with severe psychotic symptoms, moderate to high suicide risk, and a lapse in functioning at home and at work, the level of functioning was rated as quite high which was inconsistent with the presenting problems. In this case, the crisis worker probably made a mistake in using the rating scale.

Appropriateness of the Decision to Hospitalize the Patient

The results of the second part of the study, i.e., the validity of the emergency room disposition, provide strong support for concluding that the majority of decisions made by crisis workers in the study are valid and appropriate. The large majority of

hospitalizations were considered to be appropriate by both the Ravenswood and other inpatient facility staff. A high proportion of non-hospitalized patients were contacted for follow-up; discriminant and chi-square analyses showed little significant difference between patients who could be contacted for follow-up and patients who could not be contacted. The main difference between the two groups was in previous psychiatric history; patients who could not be contacted for follow-up were more likely to have a previous history of psychiatric treatment than those who were contacted. The follow-up group can be considered to be fairly representative of the non-hospitalized group, despite this difference.

For patients who were not hospitalized, it was hypothesized that if the disposition was appropriate, there would be no significant exacerbation of the patient's condition between the time of the emergency room visit and the time of follow-up. The results of t-test analysis of the follow-up data provided strong support for this hypothesis.

Role of the Significant Other

With regard to the impact of significant other variables on the emergency disposition, this study suffers, as do most, from lack of data. The major clue as to the importance of the significant other in either provoking of or resolution of an emergency in this study was the large percentage of significant others (42%) who said they thought the patient should have been hospitalized at the time

of the emergency room visit. The proportion of patients who thought they should have been hospitalized was smaller (27%).

These figures are in contrast to the few cases classified as "false negatives," i.e., should have been hospitalized, and to the finding that most patients stayed the same or showed improvement in their condition at the time of follow-up. This raises an interesting dilemma for the crisis service. While the clinical decisions seem clearly appropriate, we are left with a large number of patients feeling dissatisfied and feeling that they should have been hospitalized. It would be especially desirable to have data on this type of transaction between a crisis worker and a patient's family, particularly since some authors (e.g., Tischler, 1966) have provided strong evidence of the family's role in getting a decision made on grounds other than clinical status.

All the cases in which a patient or significant other said they thought the patient should have been hospitalized were reviewed individually. There were 18 such cases. Of the 18 patients, 9 reported feeling better, with increased level of functioning and decreased severity of problems. Six patients reported that their condition was about the same; three of these patients had been given referrals with appointments within the week following their emergency room visit, but refused to follow through. Three patients and/or significant others reported the patient's condition to be worse than at the time of follow-up.

There were four cases in which the family was adamant in insisting that the patient be hospitalized, despite clinical indications against hospitalization, and the crisis worker refused. These families were still angry at the time of follow-up; some had tried, and failed, to get the patient admitted elsewhere. These four cases clearly indicate a need for an investigation of the significant other's role in getting patients' hospitalized and in getting mental health workers to modify their decisions about the patient. The Tischler (1966) study clearly showed that residents' perceptions of a family as supportive or non-supportive of a patient were a major factor in deciding whether to admit the patient or return the patient home. The Krohn and Akers' (1977) review concluded that family influence was a major factor in decisions about admitting and releasing psychiatric patients. Further research needs to collect more carefully data related to the above transactions, assessing the possibility of system pathology in addition to individual pathology in emergency situations.

Role of the Therapist

The role of therapist and patient-therapist interaction variables was not assessed in this study other than by looking at therapist hospitalization rates. The major important finding was that the decision to hospitalize was not shown to be related to the therapist making the decision. All therapists in the study had similar hospitalization rates. This finding is in contrast to the

studies reviewed above, which showed a great deal of variability in therapist hospitalization rates. It may be that the presence of staff trained specifically for crisis work and involved in ongoing peer consultation as well as supervision guards against having decisions made according to individual preference of theoretical orientation. Alternatively, it may be that constraints such as the number of hospital beds available produce a consistent base rate over time. This possibility is unlikely, given that several inpatient facilities were used in the study in addition to the Ravenswood inpatient unit.

Referral Completion

There are several other areas of interest in the study worth brief mention. Close to 50% of patients had contacted the referrals given at the time of the emergency room visit at the time of follow-up. This rate appears low, and may represent a problem area in the crisis service. The figure is in keeping with the referral completion rates identified in Jellinek's (1980) review of emergency room referrals. In his study, referral completion rates increased dramatically when patients were given direct appointments with the referral facility. In addition, he found that patients who did not complete referrals tended to be in disagreement with the resident in their perception of the problem and the most effective treatment of the problem; another group of patients not completing referrals were described as "vague," i.e., could not articulate their presenting

problems, the reason for their emergency room visit, and could give no reason for not completing the referral. This study suggests the importance of patient-therapist relationship factors in arriving at an agreed-upon treatment plan and in helping the patient seek treatment, as well as the importance of looking into the patient group defined as "vague." There was a small proportion of patients in this study who did not recall being given a referral by the crisis worker, even though the referral was recorded in the patient's chart and the patient was given a referral slip.

The chronic crisis patient. An additional problem area identified in the study was that of the chronic crisis patient. Twelve patients in the study had more than one emergency room visit during the time period of the study. The only study which specifically investigated the characteristics of this patient population was Bassuk and Gerson (1980). In their study, the chronic crisis patient group was described as having a common symptom profile, a similar treatment history, and a typical manner of interacting with therapists. These patients were more likely to have a lengthy psychiatric history with multiple hospitalizations and current outpatient treatment, tended to be negativistic, and had difficulty establishing rapport with emergency room therapists. The authors pointed out that the above characteristics interact to produce a self-defeating style of continuously seeking help and then rejecting it (Bassuk & Gerson, 1980).

The patient group in this study with more than one emergency room visit in three months appear to fit the pattern described by Bassuk and Gerson (1980), although the data on the above factors is incomplete. It would be extremely useful to study the characteristics of the chronic crisis patient group at Ravenswood over a period of one year. These patients are perceived in most settings by staff as creating tremendous management problems and requiring a good deal of time. It would be particularly helpful to look at the effectiveness of various procedures in helping this type of patient contain acute symptomatology and engage more actively in the treatment process.

Summary

In summary, this study has provided strong support for the hypothesis that clinical rather than demographic variables are more important factors in deciding whether to hospitalize an emergency room patient. In addition, the study provided strong evidence that the decision made in psychiatric emergencies at Ravenswood are valid and appropriate. The study also pointed out some interesting dilemmas facing emergency psychiatric facilities, such as the difficulty involved in refusing a patient hospitalization whose family is strongly pushing for hospitalization, and dealing with the frequent mismatch between patient, therapist, and family perceptions of the problem and the best solution to the problem. Referral completion rates were identified as a problem in need of further investigation, as well as the problem of chronic crisis patients, or repeat

visitors to the emergency room.

Several characteristics of the sample limited the generalizability of this study. First, data were collected only during the summer months; it is not known if a sample collected during the winter months would differ. Second, the sample is mainly white. While this is characteristic of the catchment area served by Ravenswood Hospital CMHC, it limits the study's generalizability to other psychiatric emergency facilities. Third, the data is not complete, since 56 patients either refused to consent to follow-up or could not be contacted.

It became clear through the literature review that the psychiatric emergency service task involves attending to a complex matrix of variables, such as patient clinical and demographic characteristics, significant other data, patient-therapist relationship data, and system data. This study did not begin to address the complexity of evaluating the crisis service by including all of the above data. In addition, the possibilities in decision-making are much more extensive than the dichotomy to hospitalize or not to hospitalize the patient. Future studies, particularly those involving a comprehensive community mental health center like Ravenswood Hospital CMHC, need to expand the investigation of the emergency decision-making process by taking into account the complete set of possible dispositions. Finally, the study did not distinguish between voluntary and involuntary status of hospitalized patients, a distinction pinpointed

as crucial in the literature review.

REFERENCES

- Bassuk, E., & Gerson, S. Chronic crisis patients: A discrete clinical group. American Journal of Psychiatry, 1980, 137, 1513-1517.
- Baxter, S., Chodorkoff, B., & Underhill, R. Psychiatric emergencies: dispositional determinants and the validity of the decision to admit. American Journal of Psychiatry, 1968, 124, 1542-1546.
- Blane, H., Muller, J., & Chafetz, J. Acute psychiatric service in the general hospital: II. Current status of emergency psychiatric services. American Journal of Psychiatry, 1967, October Supplement, 37-45.
- Caplan, G. Principles of preventive psychiatry. New York: Basic Books, 1964.
- Chafetz, M. The effect of a psychiatric emergency service on motivation for psychiatric treatment. Journal of Nervous and Mental Disease, 1965, 140, 442-448.
- Coleman, J. V. Research in walk-in psychiatric services in general hospitals. American Journal of Psychiatry, 1968, 124, 1668-1673.
- Ellsworth, R. B. Consumer feedback in measuring the effectiveness of mental health programs. In M. Guttentag & E. L. Struening (Eds.), Handbook of evaluation research. Beverly Hills, California: Sage Publications, 1975.
- Etcheverry, B. A. Factors influencing the psychiatric treatment decision: Hospitalization or referral to outpatient services. Dissertation Abstracts, 1977, 38(4B), 1878.
- Feigelson, E. The decision to hospitalize. American Journal of Psychiatry, 1978, 135, 354-357.
- Gauron, E., & Dickenson, J. Diagnostic decision making in psychiatry: Information usage. Archives of General Psychiatry, 1966, 14, 225-232.
- Gerson, S. Determinants of psychiatric emergency room disposition. Dissertation Abstracts International, 1979, 39(11B), 15552.

- Gerson, S., & Bassuk, E. Psychiatric emergencies: An overview. American Journal of Psychiatry, 1980, 137, 1-11.
- Gove, W. Labelling and mental illness: A critique. In W. R. Gove (Ed.), The labelling of deviance: Evaluating a perspective. New York: Wiley, 1975.
- Hankoff, L. D., Mischorr, M. T., & Tomlinson, K. F. A program of crisis intervention in the emergency medical setting. American Journal of Psychiatry, 1974, 131, 47-50.
- Hanson, G., & Babigian, H. Reasons for hospitalization from a psychiatric emergency service. Psychiatric Quarterly, 1974, 3, 336-351.
- Jellinek, M. Referrals from a psychiatric emergency room: Relationship of compliance to demographic and interview variables. American Journal of Psychiatry, 1978, 135, 209-213.
- Kass, F., Karasu, T. B., & Walsh, T. Emergency room patients in concurrent therapy: A neglected clinical phenomenon. American Journal of Psychiatry, 1979, 136, 91-92.
- Kiesler, D. Some myths in psychotherapy research and the search for a paradigm. Psychological Bulletin, 1966, 65, 110-136.
- Krohn, D., & Akers, R. L. An alternative view of the labeling versus psychiatric perspectives on societal reaction to mental illness. Social Forces, 1977, 56, 341-361.
- Krystal, H. Discussion of S. Baxter, B. Chodorkoff, & R. Underhill: Psychiatric emergencies, dispositional determinants and the validity of the decision to admit. American Journal of Psychiatry, 1968, 124, 1546-1548.
- Mendel, W., & Rapport, S. Determinants of the decision for psychiatric hospitalization. Archives of General Psychiatry, 1969, 20, 321-328.
- Miller, W. B. A psychiatric emergency service and some treatment concepts. American Journal of Psychiatry, 1968, 124, 924-933.
- Muller, J., Chafetz, M., & Blane, H. Acute psychiatric services in the general hospital: III. Statistical survey. American Journal of Psychiatry, 1967, October Supplement, 46-57.
- Paykel, E., Hallowell, C., & Dressler, D. Treatment of suicide attempters. Archives of General Psychiatry, 1974, 31, 487-491.

- Scheff, T. J. The labelling theory of mental illness. American Sociological Review, 1974, 39, 444-452.
- Scheff, T. J. Another look at the hospital variable. American Journal of Psychiatry, 1979, 136, 1350.
- Schwartz, M., & Errera, P. Psychiatric care in a general hospital emergency room: II. Diagnostic features. Archives of General Psychiatry, 1963, 9, 113-121.
- Schwartz, D. A., Weiss, A. T., & Miner, J. M. Community psychiatry and emergency service. American Journal of Psychiatry, 1972, 129, 710-715.
- Schweitzer, L., & Kierszenbaum, H. Community characteristics that affect hospitalization and rehospitalization rates in a municipal psychiatric hospital. Community Mental Health Journal, 1978, 14, 63-73.
- Shader, R., Binstock, W., & Ohly, J. Biasing factors in diagnosis and disposition. Comprehensive Psychiatry, 1969, 2, 81-84.
- Tischler, G. Decision-making process in the emergency room. Archives of General Psychiatry, 1966, 14, 69-78.
- Trier, T., & Levy, R. Emergent, urgent, and elective admissions. Archives of General Psychiatry, 1969, 21, 423-430.
- Tyson, R., Miller, S., & Browning, C. A study of psychiatric emergencies: Part I. Demographic data. Psychiatry in Medicine, 1970, 1, 349-357.

APPENDIX A

Ravenswood Hospital Medical Center

Call From:

ER Summary Sheet

Date & time:

Address:

Name:

Phone #:

Age:

Educational Level:

Sex:

in household:

Race:

Employment:

Marital Status:

Previous Hospitalization:

Problem List:

Previous O/P:

Severity:

Dx:

LOF:

Disp:

Suicide:

Homicide:

Emerg. Contact:

APPENDIX B

RAVENSWOOD HOSPITAL CMHC

Adult Level of Functioning Scale

III. Definition of the Nine Scale Levels of Functioning.

With regard to the balance of the four criteria (personal self-care, social, vocational/educational and emotional symptoms/stress tolerance), the person's ability to function autonomously in the community is at "Level X", where "X" can assume one of the following nine (9) levels.

Level I: Dysfunctional in all four areas and is almost totally dependent upon others to provide a supportive protective environment.

Level II: Not working; ordinary social unit cannot or will not tolerate the person; can perform minimal self-care functions but cannot assume most responsibilities or tolerate social encounters beyond restrictive settings (e.g., in group, play, or occupational therapy).

Level III: Not working; probably living in ordinary social unit but not without considerable strain on the person and/or on others in the household. Symptoms are such that movement in the community should be restricted or supervised.

Level IV: Probably not working, although may be capable or working in a very protective setting; able to live in ordinary unit and contribute to the daily routine of the household; can assume responsibility for all personal self-care matters; stressful social encounters out to be avoided or carefully supervised.

NOTE: Levels 5 through 8 describe persons who are usually functioning satisfactorily in the community, but for whom problems in one or more of the criteria areas force some degree of dependency on a form of therapeutic intervention.

Level V: Emotional stability and stress tolerance is sufficiently low that successful functioning in the social and/or vocational/educational realms is marginal. The person is barely able to hold on to either job or social unit, or both, without direct therapeutic intervention and a diminution of conflicts in either or both realms.

- Level VI: The person's vocational and/or social areas of functioning are stabilized but only because of direct therapeutic intervention. Symptom presence and severity is probably sufficient to be both noticeable and somewhat disconcerting to the client and/or to those around the client in daily contact.
- Level VII: The person is functioning and coping well socially and vocationally (educationally); however, symptoms reoccurrence is sufficiently frequent to maintain a reliance on some sort of regular therapeutic intervention.
- Level VIII: Functioning well in all areas with little evidence of distress present. However, a history of symptom reoccurrence suggests periodic correspondence with the Center; e.g., a client may receive a medication check from a family physician who then contacts the Center monthly, or the client returns for bi-monthly social activities.
-
- Level IX: The person is functioning well in all areas and no contact with the MH/MR services is recommended.

APPENDIX C

Patient _____

Rater _____

Date _____

RAVENSWOOD 7W STAFF QUESTIONNAIRE

Did you feel that hospitalization was appropriate for this patient? _____ Yes _____ No

If you felt that hospitalization was not appropriate, which of the below reasons applied--Circle all reasons below which you feel do apply:

1. Patient's symptoms which were apparent during the intake evaluation have decreased rapidly and significantly for whatever reasons.
2. Patient's symptoms appeared mild enough for an alternative outpatient intervention.
3. Patient denied suicidal/homicidal ideation which was expressed during the initial intake evaluation.
4. Extensive nursing/medical care is required, e.g., patient is incontinent.
5. Collateral/significant others provide information suggesting patient was malingering during the intake evaluation.
6. It was discovered that symptoms were due to medical problems/medication.
7. It was discovered that symptoms were drug/alcohol induced.
8. A sufficient support system was located after the intake evaluation.
9. Alternative more appropriate treatment facilities were located after the initial intake evaluation.
10. It was discovered that patient was already involved in treatment with a psychiatrist or other mental health professional.
11. Patient exhibits symptoms of alcohol/drug dependence.
12. Patient is a firesetter.

- 13. Patient exhibits violent behavior.
- 14. Patient has a history of frequent hospitalizations.
- 15. Patient is not motivated for treatment, i.e., has signed themselves out of the hospital AMA within 48 hours.
- 16. Patient refuses to take medications.
- 17. Other (describe) _____

Using the numbers which you have circled above, rank order the reasons from most to least important for this particular patient.

APPENDIX D

RAVENSWOOD HOSPITAL MEDICAL CENTER

IP _____

Rater _____

Date _____

POST MEASURE IP EVALUATIONPresenting Problems

You came to the Ravenswood Hospital Emergency Room with some problems --how troublesome would you say these problems are right now (go through each of the problems listed on the intake sheet and rate them as you would on the intake sheet from 1-5). Would you say that (name each problem) has gotten worse, remained the same, or gotten better?

Determination of Current Level of Functioning

Since coming to the emergency room at Ravenswood Hospital

1. How have you been feeling? Check for level of anxiety, other symptomatology.
2. Have you had difficulties taking care of yourself? In what ways?
3. How have you been doing at work/school (any place where the IP had been spending a significant period of time just prior to coming to Ravenswood)?
4. How have you been getting along with friends, family, etc.?

LOF Rating _____

Critical Incidents Checklist

Since coming to the emergency room at Ravenswood Hospital about a week ago, have any of those events listed below occurred? Circle all those that have occurred.

1. Suicidal attempt
2. Other attempt at self bodily harm (describe)
3. Homicidal attempt
4. Other attempt to harm another person (describe)
5. Loss of job/quitting school
6. Destruction of property
7. Legal problems/involvement with police (describe)
8. Change in residence/disappearance (describe)
9. Return to an emergency room for same or similar reasons (where--
what happened?)
10. Hospitalization (where--what happened?)

Were you satisfied with the service that you received at the Ravenswood Hospital Emergency Room? On a scale from 1 to 4 with 1 being not at all satisfied and 4 being extremely satisfied, how would you rate your experience?

Rating _____

1. Do you feel that you should have been hospitalized? ☐ Yes ☐ No
2. Have you contacted any mental health facility since coming to the Ravenswood Hospital Emergency Room? ☐ Yes ☐ No

If Yes, where? _____

If No, why not? _____

3. Did the Ravenswood staff refer you to any mental health facility? ☐ Yes ☐ No

If Yes, where? _____

APPROVAL SHEET

The thesis submitted by Mary Catherine Moore has been read and approved by the following committee:

Dr. Thomas P. Petzel, Director
Professor, Psychology, Loyola

Dr. Emil J. Posavac
Professor, Psychology, Loyola

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

12/9/81
Date

Thomas P. Petzel
Director's Signature