community treatment of the chronic patient: research overview*

Mary Ann Test and Leonard I. Stein

As the number of chronic psychiatric patients living in the community has increased, so too has the interest in researching the community treatment of these patients. Before 1955 there was little interest in this area as the treatment of chronic patients was almost exclusively carried out in institutions. Since that year, however, there has been a steady decline in the number of patients in hospitals and a steady rise in the number of patients living in the community. Several interrelated factors are responsible for this trend, and although there is a good deal of debate about the relative importance of these factors, there is general agreement that they all contributed to some extent. These factors are: (1) the availability of effective psychotropic drugs; (2) the post-World War II explosion in the number of mental health professionals of all disciplines; (3) mental health principles intrinsic to the community psychiatry movement, specifically the doctrine of treatment near home; (4) legal actions in the courts and through legislation to protect the civil rights of mental patients; (5) economic motives for reducing or shifting the cost of care for these patients; and (6) research results that demonstrated quite conclusively that hospital treatment is relatively ineffective in helping patients establish a sustained community adjustment after discharge from the hospital.

The above-mentioned research falls into two groups of studies. The first group examines the relationship between hospital treatment and posthospital adjustment. With few exceptions, the findings are uniform. That is, while upgrading hospital treatment led to accelerated hospital improvement and earlier discharge, there was no difference between experimental and control groups in posthospital adjustment as measured by employment and readmission rates (e.g., Anthony et al. 1972). The second group of studies are concerned with the relationship between length of hospital stay and posthospital adjustment. In these studies patients were randomly assigned to varying lengths of hospital stay and postdischarge data were obtained. Again, with few exceptions (e.g., Glick et al. 1976), the results were quite consistent—short-stay patients did at least as well postdischarge as longer-stay patients (e.g., Herz, Endicott, and Spitzer 1977).

The presence of large numbers of patients in the community necessitated the development of treatment modalities for them; community treatment programs thus began to be implemented on a widespread basis. Unfortunately, most such programs were neither well grounded in a theoretical framework nor based on evidence of demonstrated effectiveness. The fact that in-hospital programs had proved ineffective in improving community adjustment said nothing, after all, about whether community programs would be any more successful. Over time, however, a small body of research assessing the feasibility and effectiveness of community treatment of the chronic patient has accumulated. This article will review this research and attempt to draw conclusions from it that have direct implications for program development and clinical practice.

*Reprint requests should be addressed to the senior author at the School of Social Work, University of Wisconsin, 425 Henry Mall, Madison, WI 53706.

Description of the Population

The term "chronic psychiatric patient" has been used in many ways, and the investigators whose studies are reviewed here vary greatly in how narrowly they define this population. Our own definition is broad enough to encompass the range of relevant research but also is an attempt to add specificity to an ambiguous term. This definition may have some clinical or policy usefulness, but as we suggest later, it is too broad to be used for research purposes.

For the purposes of this review, the term "chronic psychiatric patient" includes not only patients with long histories of psychiatric illness and institutionalization but also younger patients whose histories and clinical picture suggest a chronic course. The characteristics of these patients are as follows:

- High vulnerability to stress—these patients often develop severe psychopathology when confronted with only minimal to moderate stress.
- Deficiencies in coping skills—they frequently lack the basic skills required for everyday living such as budgeting money, using public transportation, doing laundry, and preparing meals.
- Extreme dependency—they perceive themselves as quite helpless and thus requiring massive support from families or institutions to survive. When this support is threatened, they frequently develop severe psychopathology.
- Difficulty with working in the competitive job market—with some exceptions they have histories of difficulty in working at all or reveal very frequent job changes interspersed with long periods of unemployment. Their difficulty in maintaining competitive employment is probably related to stress factors, since many of these same patients do quite well in sheltered work experiences where expectations are geared to the patient's capabilities.
- Difficulty with interpersonal relationships—with some exceptions, they have great difficulty in developing close relationships with others.

In summary, the chronic psychiatric patient is one whose emotional disabilities are so serious and persistent that without special support he or she is unable to maintain a stable adjustment to community life. Such patients represent a wide spectrum of diagnostic categories; the majority, however, carry a diagnosis of schizophrenia.

A Review of the Literature

"Community treatment" is defined broadly as any treatment that takes place in the community either in lieu of hospitalization (alternatives to the mental hospital), following early discharge ("premature release"), or after hospitalization (aftercare). The following review of studies on these three types is limited to prospective experiments that systematically compare outcomes for a group of patients treated by one particular method with outcomes of a comparable group treated in some other way or studied as a formal no-treatment control.

Alternatives to Mental Hospital Treatment

The most radical form of community treatment involves attempts to develop alternatives to the mental hospital. Instead of being admitted to an institution, persons who would traditionally be viewed as "in need of in-hospital care" are instead treated entirely in the community. The primary rationales for creating alternatives to the mental hospital are that institutional dependency, disruption to patients' lives, and stigmatization will be minimized through the elimination of hospitalization; also treatment in the community allows exposure to healthier role models and presents opportunities for patients to learn coping skills right where they will be using them. Additionally, costs may be reduced and the community site is viewed as a less restrictive alternative than the hospital. In reviewing the controlled studies of alternatives to mental hospital treatment, we seek to answer two questions. First, can patients usually treated in hospitals be treated in the community, and if so, in what types of settings? Second, how effective is such community treatment compared with hospital treatment?

An array of controlled studies indicates that

it is indeed possible to treat a broad spectrum of patients almost totally in the community. We will briefly survey the nature of the community alternatives used and the kinds of patients involved before turning to the question of the effectiveness of these programs compared to hospital treatment.

Three studies (Langsley and Kaplan 1968; Pasamanick, Scarpitti, and Dinitz 1967; Rittenhouse 1970) demonstrated that it is possible to treat patients at home rather than admit them to the hospital. All three studies involved randomly assigning patients to a home treatment or to an in-hospital condition. Each study involved a selected sample of patients usually hospitalized—that is, only patients whose families were willing to keep the patient at home and participate in the home treatment were included. In all three studies the home treatment condition involved a relatively minimal therapeutic input. Home treatment in the Pasamanick, Scarpitti, and Dinitz (1967) project consisted of weekly (or less frequent) visits by public health nurses to patients' homes to provide drugs and supportive therapy. In the Langsley and Kaplan (1968) study, the home treatment was family crisis therapy aimed at teaching the patient and family about ways of handling crises without hospitalization. In the Rittenhouse project (1970) the home treatment consisted of family unit therapy as developed by Satir (1967). All three studies found that almost all the experimental patients (at least 77 percent) could be kept continuously out of the hospital as long as the home treatment was in effect.

Three controlled studies expanded the generality of the alternatives to mental hospitals. They demonstrated that it is possible to treat patients who do not have a stable home situation in some kind of nonfamily residential setting rather than admit them to a hospital. Rutman (1971) diverted a random sample of nonassaultive or suicidal new admissions from Philadelphia State Hospital to Spruce House, a halfway house where all patients meeting the study admission criteria were treated in a token economy milieu. Mosher and Menn (1977, 1978) and Mosher, Menn, and Matthews (1975) treated young first-break schizophrenics in need of hospital admission in Soteria House, a residential setting with a permissive unstructured milieu staffed primarily by paraprofessionals who attempted to guide clients through their psychoses, usually without the use of medications. Only 2 of 30 patients had to be transferred to inpatient care because Soteria was not able to deal with them effectively. Polak (1978) and Polak and Kirby (1976) admitted patients in the southwest Denver area to "crisis homes" rather than to the hospital. Such homes were run by private families who provided support and shelter for patients for relatively short periods of time (several days to several weeks); they were assisted by mental health workers who provided outreach and consultation. While 10 of the first 40 patients could not be treated in the crisis homes and had to be hospitalized, this percentage declined over time and should be considered in light of the fact that Polak dealt with a totally unselected sample.

A nonresidential modality that has been used as an alternative to the mental hospital is the day hospital. Three controlled studies (Herz et al. 1971; Michaux et al. 1972; Wilder, Levin, and Zwerling 1966) compared day treatment with 24-hour in-hospital care for patients seeking admission to an in-hospital setting. Of note is the fact that one study (Wilder, Levin, and Zwerling 1966) rejected one-third of the patients randomly assigned to the day treatment condition, whereas the other two studies only sampled from those patients "for whom both treatments were judged equally feasible" (Herz et al. 1971). The day treatment studies thus excluded a rather large and undefined group who were judged "too ill" to be treated in a day setting. Among those patients involved in day treatment, however, approximately 80 percent were able to stay out of the hospital completely.

Finally, the community itself was used as a treatment alternative to the mental hospital (Stein and Test 1978; Stein, Test, and Marx 1975; Test and Stein 1976*a*, 1978). An unselected group of patients seeking in-hospital admission to a State hospital, excluding patients with organic brain syndrome or primary alcoholism, were randomly assigned to a community or hos-

pital condition. The community treatment consisted of patients living in independent settings (e.g., rooms, apartments) and receiving help from a mobile staff who taught them coping skills necessary to live in the community, including shopping, budgeting, laundry upkeep, employment skills, and leisure time activities. With this very intensive community program, hospitalization was totally eliminated for all but 18 percent of the sample while treatment was in effect.

From this brief review, it can be concluded that it is feasible to treat most of those patients usually admitted to a hospital in some kind of community alternative. An exception is patients diagnosed as having organic brain syndrome. Most studies have excluded organic patients from the sampled population while one study that included organics (Wilder, Levin, and Zwerling 1966) found that many had to be hospitalized. Among nonorganic patients studied, a sample of approximately 15 to 25 percent usually require short admissions primarily because of assaultive or suicidal problems. The rest of the population can be kept in the community continuously while treatment is in effect.

This review now turns to the question of the effectiveness of community alternatives relative to in-hospital treatment. "Effectiveness" has been measured by most investigators by the impact on some or all of the following outcome variables: (1) time out of the hospital and readmission rates; (2) psychiatric symptomatology; (3) psychosocial functioning—e.g., role performance, employment, and social functioning; and (4) client satisfaction. Some studies also include measures of economic cost and family and community burden. We consider the latter extremely important and will discuss it later in this paper.

Several comments on the experimental design of studies on alternatives to the mental hospital are necessary before drawing conclusions about the effectiveness of community treatment. First, all studies compared groups of patients assigned to either an in-hospital group or a community alternative. Most studies involved random assignment procedures. In those studies that did not randomly assign but attempted to make groups comparable through some other means (Michaux et al. 1972, and Mosher and Menn 1978) there is reason to view the results with more caution. Second, almost all the studies involved an active treatment period during which the experimental alternative to the mental hospital treatment was in effect, as well as a research followup period during which only the traditional treatment system remained available to patients if they required services. Pasamanick, Scarpitti, and Dinitz (1967), for instance, treated patients at home for 30 months and followed them for research purposes for 5 years (Davis, Dinitz, and Pasamanick 1974). Stein and Test (1978) treated patients for 14 months in the community, then followed them for 14 more months (Test and Stein 1977). With such designs we need to consider both the effectiveness of community treatment while such treatment is available and also the duration of effect after the treatment ceases.

Finally, regarding design, the studies vary enormously in the quality of their outcome measures. Some address the whole range of outcome variables suggested above while others focus on only one or two variables. Some involve independent raters in notable attempts to minimize bias while in others the treaters are the raters. In addition, widely different instruments are used. The most frequently cited measures of symptomatology appear to be the Brief Psychiatric Rating Scale (Overall and Gorham 1962) and the Inpatient Multidimensional Psychiatric Scale (Lorr et al. 1962). The range of measures of psychosocial functioning is even more variable, with the Katz Adjustment Scale (Katz and Lyerly 1963) being cited most often.

In view of the enormous diversity of studies of alternatives to mental hospitals along the dimensions of treatment modality, duration of treatment, and outcome measurement, the concordance in results is striking. Major conclusions are summarized below according to area of outcome.

- *Time in hospitals:* Community treatment results in less time spent in the hospital. This finding is certainly not surprising

since experimental patients were usually not admitted to hospitals initially and there were subsequent concentrated efforts to keep them out. It is noteworthy, however, that in some studies even after the community treatment was no longer available, experimental patients spent less time in the hospital than the controls during the first 6 to 12 months of the followup period. This was due to the fact that community treatment patients were readmitted less often than the in-hospital controls (Herz et al. 1971; Langsley, Flomenhaft, and Machotka 1969; Mosher and Menn 1978; Rittenhouse 1970) and/or because their length of stay in the hospital was shorter if readmitted (Langsley, Flomenhaft, and Machotka 1969; Test and Stein 1977). It is very important to note, however, that in the followup period the difference between experimental and control groups on time spent in the hospital always disappeared, often by 1 year (Davis, Dinitz, and Pasamanick 1974; Langsley, Machotka, and Flomenhaft 1971; Mosher and Menn 1977; Test and Stein 1977).

- *Psychiatric symptomatology:* The most consistent finding here is that during treatment, symptomatology decreases significantly for patients in both community and in-hospital conditions, but that there is no difference in the amount of reduction between the two treatment conditions (Langsley and Kaplan 1968; Mosher and Menn 1977; Pasamanick, Scarpitti, and Dinitz 1967; Rittenhouse 1970). Exceptions to this finding are the Michaux et al. (1972) study in which symptomatology decreased more in the in-hospital group and the Herz et al. (1971) and Stein and Test (Stein and Test 1978; Test and Stein 1978) studies in which the decrease was greater in the community alternatives groups. A number of investigators hypothesize that reduction in symptomatology is most closely tied with pharmacological intervention and that whichever treatment keeps such intervention more available will result in more consistent symptom reduction. This interpretation cannot be made for all treatment environments, however, for Mosher and Menn (1977) report impressive results in achieving and maintaining symptom reduction with minimal use of neuroleptics.

- *Psychosocial functioning:* The majority of studies reviewed reveal no difference between the in-hospital and community treatment groups on the amount of change in psychosocial functioning, with the level of psychosocial functioning often being quite low (Langsley and Kaplan 1968; Pasamanick, Scarpitti, and Dinitz 1967; Polak 1978; Rittenhouse 1970; Rutman 1971; Wilder, Levin, and Zwerling 1966). Two exceptions to this finding are the Mosher and Menn and Stein and Test studies (Mosher and Menn 1978; Stein and Test 1978; Test and Stein 1978). Mosher and Menn (1978) found that significantly more Soteria-treated patients than controls were living alone or with peers 2 years postadmission. They also found less decline in the overall occupational level of experimental patients from baseline to 2 years postadmission, although there were no significant intergroup differences in the percentage of subjects working full or part time. Stein and Test (1978) meanwhile found that during treatment community subjects showed significantly less unemployment, higher competitive income, more independent living, and better social relationships than the controls. During the 14-month followup period these differences generally diminished and, by 28 months from baseline, the experimental group remained superior to the controls only on the variables of income earned from competitive employment and social relationships, though on the latter variable both groups revealed declines after treatment (Test and Stein 1977).

- *Client satisfaction:* Only three studies (Polak 1978; Test and Stein 1978; Wilder, Levin, and Zwerling 1966) measured client satisfaction. All three found that patients

in the community treatment conditions were more satisfied with their treatment and/or their lives than patients in the in-hospital control groups.

"Premature Discharge" Studies

The second group of community treatment studies considered here are those termed "premature discharge" studies. This research involved patients in the hospital who were generally deemed "not ready for discharge." A random sample of these patients were discharged "prematurely" (i.e., before they typically would be) because of the existence of a special community treatment program. The evaluation consisted of comparing the outcome of those patients randomly assigned to the "premature discharge" community treatment group with those patients treated in the hospital until they were "ready" for discharge. There are four well-controlled studies of this nature, each using a different community treatment modality.

Linn et al. (1977) studied foster care as an alternative to continued hospitalization for VA patients whose current hospitalization averaged 45 months. Patients whom social workers judged as "suitable candidates" were randomly assigned to preparation for foster care (and eventual discharge to foster care) or continued hospitalization. Seventy-three percent of the foster care patients were placed, and evaluation 4 months after placement revealed that two thirds of those placed were still in the community and showed less social dysfunction and better global adjustment than their matched in-hospital controls. There were no differences in the two groups in mood or activity level.

Washburn et al. (1976) randomly assigned patients who had been in McLean Hospital for 2 to 6 weeks to a continued hospitalization or day treatment condition. Like the previously cited day treatment studies, the sampling was limited to those patients for whom day treatment appeared to be a feasible option. From the description of the study it is impossible to ascertain how long patients were in treatment, but results revealed that patients in both groups generally improved over time, with day patients showing less subjective distress throughout the study than controls. During the first year, day patients also revealed significantly better community adjustment than controls, but there was no difference in this variable after 1½ years. Informants of the day patients were also more satisfied with the treatment modality than informants of the in-hospital group.

Marx, Test, and Stein (1973) randomly assigned an unselected group of patients who were in the hospital for periods of from 3 to 18 months to a community treatment or continued hospitalization control group. The community group received treatment similar to that of the Stein and Test (1978) study for 5 months. Results demonstrated that it was feasible to release the experimental patients early and that at the end of the 5-month treatment period such patients were in more autonomous living and employment situations than controls. There was no difference between groups on amount of symptom reduction. After the active treatment period ceased, differences between experimental and control groups disappeared.

Weinman and his associates (Weinman et al. 1970; Weinman and Kleiner 1978) studied chronic psychotics who had been in the hospital an average of 13 years. Patients judged to have the potential for developing those coping skills necessary for community adjustment were randomly assigned to community treatment or to in-hospital socioenvironmental therapy (e.g., 8 to 12 months of intensive in-hospital preparation for community living). The community treatment condition consisted of patients living in the community and receiving intensive help in learning community living skills from "enablers," paid indigenous community members who received supervision from the mental health staff. According to random assignment, patients either lived with the enabler or lived independently and were visited daily by the enabler. The active treatment period lasted 12 months and patients were followed for an additional 24 months for research purposes. Results revealed that more experimental than control patients were successfully separated from the hospital.

There was no difference between groups in psychiatric symptomatology. There were several differences favoring the experimental group in instrumental and social performance, and self-esteem was higher for experimental patients. In this study Weinman and Kleiner (1978) made a major contribution in identifying significant community treatment variables through their comparison of the live-in and visiting enabler conditions. They found recidivism lower and self-esteem higher for patients in the live-in condition, but instrumental performance poorer when compared with that of patients in the visiting enabler condition. They interpret these findings as reflecting different expectations of the two conditions; low expectations (live-in condition) lead to less stress and less recidivism whereas higher expectations (visiting enabler) result in higher recidivism but better functioning.

The overall results of the premature discharge studies are generally consistent with the alternatives studies. In summary, it is feasible to discharge patients early if there is an active community program, and this practice results in less time spent in the hospital as long as the community program is in effect. Most frequently there is little difference between groups in psychiatric symptomatology. In programs involving intensive psychosocial input, the community groups show better functioning in the psychosocial areas although differences here typically diminish after the special treatment stops. In those studies measuring subjective satisfaction or self-esteem, community programs show an advantage.

Aftercare Studies

Despite the increasing number of studies showing that it is possible to treat chronically disabled patients virtually without use of the hospital, short hospitalization rather than no hospitalization continues to be the most widely used approach. While acute symptomatology is effectively reduced through short hospital stays, extremely high rates of recidivism (Rosenblatt and Mayer 1974), poor community functioning, and quality of life are matters of increasing public and professional concern (Murphy, Pennee, and Luchins 1972; Trotter and Kuttner 1974). Regarding the issue of recidivism, in a comprehensive review of the literature, Anthony et al. (1972) estimate that between 40 and 50 percent of discharged patients return to the hospital within 1 year. Their data also reveal that only 20 to 30 percent are employed. In an effort to reduce recidivism and enhance psychosocial functioning and adjustment, community treatment after discharge—aftercare—has been instituted on a wide scale. This review now turns to research evaluating the efficacy of aftercare. Specific questions are whether aftercare is effective in reducing recidivism and enhancing community adjustment, and what kinds of aftercare are most effective for whom.

Aftercare vs. No Aftercare

A number of controlled studies have investigated whether aftercare assists discharged patients in staying in the community. These have usually involved random or consecutive assignment of patients leaving the hospital to an aftercare or no aftercare condition, with the content of aftercare varying with the study. Beard et al. (1963) studied aftercare provided at Fountain House, a psychosocial rehabilitation center. Aftercare in a study by Claghorn and Kinross-Wright (1971) consisted of counseling in an outpatient clinic. Katkin et al. (1971) assessed the value of aftercare that involved supportive therapy given by volunteer housewives. Sheldon's (1964) aftercare consisted of day or outpatient treatment. Finally, Caffey, Galbrecht, and Klett (1971) compared enriched aftercare provided by the inpatient staff of a VA hospital to traditional aftercare (referral to existing services).

In the majority of these studies the only dependent variable was hospital readmission rates. The findings of the studies are consistent in showing that the provision of aftercare markedly reduces recidivism in comparison to the condition where no aftercare was available. The only exception was the Caffey, Galbrecht, and

Klett (1971) study, but in this project both the experimental and control groups received some kind of aftercare. This study also evaluated symptomatology and psychosocial functioning, and found that the enriched aftercare reduced symptomatology more than the traditional. There was no difference between groups in psychosocial functioning.

With it well established that aftercare is effective in reducing recidivism, it behooves investigators to ask *why* aftercare helps. By sorting out the critical ingredients in aftercare services, investigators will be in a better position to implement the most effective and efficient aftercare programs. In all the studies of aftercare cited above, it appears that in addition to providing interpersonal therapy or support, the aftercare condition also may have kept patients on medications more effectively than the no-aftercare controls. Consequently several studies provide information about the relative effects of drugs and sociotherapy as ingredients in aftercare treatment.

Drugs Alone vs. Drugs Plus Sociotherapy

Three controlled studies offer comparisons of aftercare treatments in which random assignment is made to either a drugs-alone followup condition or to a drugs-plus-sociotherapy condition. Claghorn et al. (1974) studied a drugs-alone vs. drugs-plus-weekly group therapy condition and found no difference between groups on symptomatology after 6 months. Subtle changes in interpersonal attitudes were found favoring the therapy condition, but a possible bias existed because the raters of this variable were the therapists. Psychosocial functioning was not measured.

Guy et al. (1969) investigated the use of drugs alone (given through an outpatient clinic) and drugs-plus-day hospital treatment. Ratings made at termination of treatment revealed several findings favorable to day treatment. However, the study indicates that patients were in the day treatment condition longer than those in the drugs-only condition. Thus day treatment patients may have received drugs longer, and the differences may have been due to this variable rather than to the sociotherapy provided.

A well-designed study by Hogarty and Goldberg (1973) is most illuminating in separating the relative effects of drugs and sociotherapy in aftercare services. Newly discharged schizophrenic patients were randomly assigned to one of four groups—drugs alone, placebo alone, drugs plus therapy, or placebo plus therapy. Therapy, called "Major Role Therapy," consisted of an average of approximately two contacts per month by a social worker who provided individual social casework and vocational rehabilitation counseling. Patients were treated for 2 to 3 years, and results are reported for 12- and 24-month followup points (Hogarty et al. 1974; Hogarty, Goldberg, and Schooler 1974). Findings relating to the variable of hospital recidivism revealed that drugs had a powerful effect in reducing readmissions whereas therapy had only a small effect (appearing after 6 months and being additive rather than interactional with the drug effect). Additionally, in a followup paper Goldberg et al. (1977) present evidence to suggest that asymptomatic patients benefited from Major Role Therapy while therapy appeared to hasten relapse in patients with greater symptom severity. Regarding the variable of psychosocial functioning, there was no main effect of either drugs or therapy. After 18 months, however, a significant interaction revealed that among patients on drugs those with therapy did better, whereas among patients on placebo those without therapy did better.

The study of Hogarty, Goldberg, and their associates is a model piece of work in alerting us to the need to study the critical variables in aftercare and in suggesting that the effects of sociotherapy may be quite complex. In this study the psychosocial intervention was a relatively weak one (only two contacts per month), which may have accounted for the limited effect. There is a definite need to study further the relative contributions of drugs and psychosocial interventions in the community treatment of the chronic patient, particulary when the latter are of an intensive and economically costly nature such as day care or extensive in vivo community contacts.

Along the psychosocial dimension other studies have addressed the question of what kinds of aftercare are most effective. This review now turns to studies comparing group vs. individual therapy for chronic patients and then to investigations involving various kinds of milieu approaches.

Groups vs. Individual Therapy

Three studies involved the random assignment of chronically disabled patients to either individual or group therapy aftercare conditions. Purvis and Miskimmins (1970) used vocational rehabilitation counselors as therapists and studied effects on the dependent variables of contact with the hospital (i.e., day or in-hospital care) and vocational success. They found that group therapy led to less hospital contact whereas there was no difference in vocational success. In this study the group therapy was community based whereas the individual therapy took place at the hospital; it is possible that the site of treatment led to differences in the amount of hospital contact rather than the therapeutic modality.

In their study of group vs. individual therapy, O'Brien et al (1972) measured rehospitalization rates, symptomatology, and social effectiveness. They found no difference between the therapeutic modalities on rehospitalization rate but reported that group patients showed more improvement in symptomatology than did individual patients. Although patients did not differ on reported drug use, the authors speculated that group patients might have been more reliable in taking their drugs since group discussion frequently centered around medication topics. This well-designed study also looked at the question of what kinds of patients do better in group vs. individual therapy. None of a number of patient variables studied interacted with treatment modality in affecting outcome (Mintz, O'Brien, and Luborsky 1976).

In a study that equated the amount of time therapists had available for the treatment of a given number of patients, Herz et al. (1974) found no difference after 1 year between group and individual therapy on the variables of readmission rate and symptomatology. The therapists showed a significant preference for the group approach, however.

The sum of these studies indicates some slight advantages of group over individual therapy with chronic patients, although it is unclear whether the clinical advantages are related to the group dimension or some correlated variable in these studies. Several of the investigators comment on the high dropout rates with either approach, and also present evidence that those patients who drop out fare very poorly (e.g., Herz et al. 1974). This is but one reason to believe that while group therapy may be slightly more successful than individual therapy for chronic patients, neither may be the treatment of choice for this population. Studies comparing milieu modalities with outpatient therapy are discussed below.

Milieu Approaches

In an early study that remains impressive in terms of its design and comprehensive data analysis, Meltzoff and Blumenthal (1966) randomly assigned discharged patients accepted for day treatment to a day treatment or conventional outpatient clinic approach. After 18 months of treatment, results revealed that day treatment patients had fewer readmissions and spent less time in the hospital, were less symptomatic, and were employed more often than were the outpatient clinic controls. Meltzoff and Blumenthal (1966) report there is no evidence that these differences were due to differences in medication. The investigators also observed which patients did better under which treatment and found that day care was more effective for the lower functioning patients whereas there was little difference between the modalities for the higher functioning patients.

In another study investigating the effectiveness of an intensive milieu aftercare approach, Fairweather et al. (1969) randomly assigned patients ready to be discharged from a VA hospital to a "community lodge" or to a traditional community aftercare control group. In the lodge

condition the patients with staff supervision formed a kind of "subsociety" in which they lived and worked together in a janitorial business. A 36-month followup revealed that experimental patients spent significantly fewer days in the hospital than controls. They also demonstrated greater employment, though this was due to their lodge-related jobs. There were no differences between groups on symptomatology, other measures of psychosocial adjustment, or satisfaction with life. Medication taking was well-supervised in the lodge, and, in all likelihood, experimental patients were maintained on drugs more effectively than were controls.

The Meltzoff and Blumenthal (1966) and Fairweather et al. (1969) studies give reason to believe that a high input milieu aftercare model is more effective than outpatient clinic aftercare in reducing hospital time and in making at least some positive impacts on psychosocial functioning.

In a final study involving milieu approaches, Lamb and Goertzel (1972) studied the variable of environmental expectations on outcome among chronically disabled patients. Patients ready for hospital discharge were randomly assigned to a "high expectancy" condition (E) consisting of day treatment, halfway house, and sheltered workshop or to a "low expectancy" condition (C) in which patients were placed in boarding and family care homes. Followup data revealed that E patients were released from the hospital faster than C patients, were readmitted more often in the first 6 months, but showed no overall difference in community stay across a 2-year followup period. High expectancy patients were more integrated socially and were involved in more structured activity than C patients, although this was related to sheltered employment since the number of E and C patients in competitive employment was approximately the same. Symptomatology was not measured. The results of this study are consistent with Weinman and Kleiner's (1978) findings indicating that while high expectancy environments do not reduce hospitalization rates (and may even increase them), they do have positive effects on psychosocial functioning.

Implications for Program Development and Clinical Practice

From this review of the literature, what can be said about the feasibility and efficacy of community treatment of the chronic patient? Through the diversity of studies reviewed we will at this point put forth several summary comments that have direct implications for program development and clinical practice.

First, regarding the variable of hospitalization and rehospitalization, the literature strongly supports a conclusion that it is possible to avoid almost completely the hospitalization of most nonorganic chronically disabled patients through the use of community treatment programs. Significant here and often overlooked in practice, however, is the finding that these positive results are maintained only a long as the special community treatment program is in effect. Even programs that work with patients over long periods of time in the community do not maintain their effects long after the treatment is stopped. Thus it appears that *ongoing* rather than time limited programs need to be implemented.

Perhaps of even more practical significance than the finding that community treatment programs can keep patients out of the hospital is the accumulation of evidence suggesting that such programs may be a *necessity* in order to prevent readmission of many patients who have previously been hospitalized. Recidivism is extremely high without aftercare programs and is greatly reduced when aftercare is available. Even with aftercare, large numbers of patients drop out and these persons frequently return to the hospital. The development of aftercare programs, as well as assertive attempts to maintain patient involvement in them, therefore appears to be a programmatic "must" based on the research literature. Regarding the issue of recidivism, much further research is needed to determine the critical variables that enable community treatment programs to assist patients in remaining in the community.

It should be noted that there has been much debate over the significance of a finding that a certain treatment is successful in keeping pa-

tients out of the hospital, for a change in the site of treatment says nothing about whether the patient's clinical status or functioning has improved. Some would argue that only the place of a person's suffering has changed, or even that the person's quality of life in the community is worse. While there is much room for philosophical debate here, two additional research findings are relevant to the discussion. First, the literature overwhelmingly suggests that the adjustment and quality of functioning of patients treated in the community (as opposed to "dumped into" the community) are no worse than those of patients treated in the hospital. Second, the few studies that have measured consumer satisfaction find it to be higher among those patients in community treatment programs when compared to those in in-hospital programs.

Whatever one's position on the issue of whether keeping patients out of the hospital is a meaningful outcome, however, there is consensus that it alone is not an optimal outcome. Most programs strive for reduced psychiatric symptomatology and increased psychosocial functioning as well. Regarding symptomatology, relatively few differences are reported between community and in-hospital programs, with the usual course being an early reduction in symptomatology whatever the site of treatment, then a leveling off as long as persons remain in treatment. While there is reason to believe that pharmacological interventions may be primarily responsible for changes in symptomatology, this is not always the case (Mosher and Menn 1977). Research aimed at studying those variables responsible for symptom change thus continues on many fronts (Keith et al. 1976).

Apart from the matter of reduced hospital time, the variable of most attention in community treatment research is that of psychosocial functioning. Improvement in community functioning, as reported in the introduction, has been an enigma to even the best of in-hospital programs. In view of widespread hopes that community treatment might offer a clear solution to this problem, the results reported in this paper might appear disappointing. That is, many of the studies revealed no difference in psychosocial functioning between in-hospital and community programs, with the level of functioning usually reported as quite low. Of great importance, however, is a core of studies which did demonstrate positive effects in the area of psychosocial functioning (Fairweather et al. 1969; Meltzoff and Blumenthal 1966; Stein and Test 1978; Weinman and Kleiner 1978). What these studies have in common is that they involved a very intensive intervention targeted specifically toward the psychosocial area. They found change in precisely those areas where treatment was directed. Fairweather et al. (1969), for instance, created jobs for patients and then provided intensive training and supervision in them. The result was better employment while treatment was in effect. Stein and Test (1978) worked side by side with patients in the activity of daily living, employment, and socialization areas and achieved favorable results in these areas as long as the treatment lasted. Weinman and Kleiner's (1978) "enablers" did likewise and also gained positive results.

Modest gains in psychosocial functioning in the community can be achieved, then, through direct and intensive intervention in specific activities of daily living in the community with gains being sustained as long as treatment lasts. While such results might certainly be labeled tautological, they may also tell us something about chronic mental illness and the best methods for intervention. That is, chronic mental illness may be a lifelong disability that requires lifelong supports and direct and ongoing interventions if maintenance of improvement is to occur. While community treatment therefore presents no panacea, certain approaches outlined here result in modest gains over previous interventions and appear to represent the most effective treatment available to date.

Recommendations for Future Research

Methodology

As is obvious from this review, research on the community treatment of the chronic psychiatric patient is in its infancy. Relating findings across studies is difficult because of the lack of standardization in both the populations

studied and outcome measures used. For research purposes we recommend using homogeneous populations whose characteristics are clearly spelled out. At a minimum, the following should be specified: diagnosis (using research criteria), age, sex, education, socioeconomic status, a measure of chronicity, and age at onset of illness.

Outcome measures in some areas are already well formulated (e.g., symptomatology) but in other areas good instruments are yet to be developed. The major need in standardizing research in community treatment is the development of a sensitive instrument to measure community adjustment. Some facets of community adjustment such as employment (type and number of hours per week) and living arrangements (independent, semisheltered, or institution) are relatively straightforward to assess. However, daily living skills, social activity, social relationships, quality of life, and satisfaction with life are vital aspects of community adjustment that are difficult to measure. The instruments presently available leave much to be desired, and the development of a community adjustment instrument should have high priority in future research efforts.

Areas of Investigation

In a field as untouched as this, there is an abundance of important areas to be researched; the following areas are those we see as being of high priority.

It is a frequent clinical observation that a schizophrenic patient experiences an exacerbation of illness immediately following a family visit. The research on the interaction between schizophrenic patients and their families has increased our knowledge concerning the relationship between family member behavior and attitudes and relapse of illness in patients (Brown, Birley, and Wing 1972; Greenley 1978; Leff 1976). Enough is now known to compare various treatment strategies involving the family and the patient. This is particularly important in community treatment endeavors, since the time that patients can potentially spend with their families is much greater now than when patients resided in institutions for long periods of time.

A second area ripe for further research is that of the relationship between stress and adaptation. As noted earlier, the chronic psychiatric patient is extremely sensitive to stress. Lamb and Goertzel's (1972) work on expectation is a specific example of the general problem. The large body of knowledge on stress and adaptation has not been fully applied to investigations with schizophrenic patients. Work in this area could, in a major way, influence treatment strategies.

Psychotropic medication plays a powerful role in the community treatment of the chronic psychiatric patient. There are, however, a number of important psychopharmacological questions yet to be answered. These include differentiating between patients who need phenothiazine maintenance therapy and those who do not; learning more about dosage levels required for maintenance; and learning more about compliance.

There are a host of service delivery problems that need research attention. One example is the problem faced by aftercare clinics and day-care centers. Virtually all these programs find themselves overburdened with patients and confronted with pressures to take more. Questions relevant to this problem include: What kinds of interventions are useful, and what ones simply use staff time needlessly? How much structure must be provided for patients? What treatment strategies lead to patients becoming more autonomous, thus requiring less staff time?

The above areas have direct clinical relevance. There are other areas in need of study that are nonclinical but that nevertheless have important indirect effects upon treatment because of their public policy implications. Treating the chronic psychiatric patient in the community confronts the community with problems and burdens that were not present when patients were hospitalized for long periods. The potential usefulness of treatment techniques is related to the degree of burden they create for the family and the community. The less burden there is, the less community resistance there will be to imple-

menting the treatment. Thus research comparing different treatment strategies would do well to compare also the community and family burden these strategies produce. Several attempts have been made in this direction already (Grad and Sainsbury 1968; Test and Stein 1976*b*), but methodologies need to be strengthened. Another nonclinical area that has extreme importance is economics. The chronic psychiatric patient by and large is not self-supporting; his or her treatment and maintenance is usually at public expense. Again, different treatment approaches may differentially affect the economic costs, both the total costs and who bears them. The cost of one program may be no greater than that of another, but it may, for example, shift the economic burden from the State to the county. This shift of economic burden has enormous impact on the feasibility of implementing programs. Thus, where appropriate, we recommend that the economics of differing treatment strategies also be measured (Weisbrod, Test, and Stein 1976).

The deinstitutionalization-community treatment movement is a movement in search of a technology. The quality of future research will in a large part dictate whether that technology will be based on data or on "schools of thought."

Summary

The deinstitutionalization and community mental health movements have led to a proliferation of community treatment programs for the chronic psychiatric patient; yet there has been little rigorous research evaluating their efficacy. This paper reviews the controlled studies on community treatment and looks at the feasibility and effectiveness of alternatives to mental hospital programs, premature release studies, and a variety of community aftercare services.

Findings consistently show that most patients usually admitted to hospitals can be treated in community alternatives. Furthermore, it appears that some kind of ongoing community treatment or aftercare program is essential in maintaining sustained community tenure. Functioning of patients in community programs is as good as that in in-hospital programs, and models stressing intensive training in community living skills have resulted in modest gains in psychosocial functioning. Much work remains to be done in isolating the critical variables in community treatment programs in order that they may be implemented in the most streamlined form.

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The Authors

Mary Ann Test, Ph.D., is Assistant Professor at the School of Social Work, University of Wisconsin, Madison, Wis. She was formerly Director of Research and Psychology at the Mendota Mental Health Institute, Madison, Wis. Leonard I. Stein, M.D., is Professor of Psychiatry at the University of Wisconsin Medical School, Madison, Wis.