SUGGESTED CROSS-REFERENCES

Protecting patients from the destructive consequences of illness is addressed in the treatment sections for specific diagnoses as well as in Section 50.1 on suicide. Section 46.4 discusses partial hospitalization of children and adolescents, and Section 46.5 discusses residential and inpatient treatment of children and adolescents. Section 49.71 discusses treatment settings for geriatric patients.

REFERENCES

Dzidzegov, M: Experience in organizing a day hospital for mental patients. (Medical Practitioner) and Psychiatry 6: 137, 1937.

50.4 PSYCHIATRIC REHABILITATION

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INTRODUCTION

The growing recognition that a large proportion of persons having schizophrenia and mood disorders experience long-term disability with persisting symptoms or a relapsing course of illness episodes has given birth to the field of psychiatric rehabilitation. While early intervention and effective treatment of acute episodes of symptom exacerbation are important for minimizing long-term disability, psychiatric rehabilitation emphasizes continuous and indefinite treatment of lifelong disorders for the maintenance of symptom control, prevention or reduction of relapse, and optimization of performance by the chronically ill patient in social, vocational, educational, and familial roles, with the least amount of support necessary from the helping professions. In addition, a major goal of psychiatric rehabilitation is the empowerment of the mentally disabled person to be actively involved in treatment decisions and to achieve the highest feasible quality of life in the community.

The population of mentally disabled persons for whom psychiatric rehabilitation is necessary is enormous. Using the triad criteria of diagnosis, disability, and duration, the 1981 National Plan for the Chronically Mentally III encompasses persons who suffer from persistent or recurrent organic, schizophrenic, mood, anxiety, and other disorders that become chronic and therefore prevent the development of their functional capacities in relation to three or more primary aspects of daily life such as personal hygiene and self-care, self-direction, interpersonal relationships, social transactions, learning, recreation, and economic self-sufficiency.

Since many childhood developmental, psychiatric, and neurodevelopmental disorders that persist for many years and impede normal psychosocial development are included in the target population, the total number of persons in the United States who need psychiatric rehabilitation in any six-month period may exceed 1 million, based on data compiled by the National Institute of Mental Health (NIMH) Epidemiologic Catchment Area Study. The terms chronic, persistent, severely, or seriously mentally ill have been used interchangeably to identify persons with long-term disabilities resulting from schizophrenia, personality...
CONCEPTUAL FRAMEWORK

Studies in Europe, the United States, and Japan that have followed persons who experienced disabling forms of schizophrenia during early adulthood have found, 20 to 40 years later, a remarkable 50 to 66 percent functioning actively in their communities, with few symptoms, a reasonably good subjective quality of life, and only limited dependence on professional caregivers. The findings from those studies have spurred interest in psychiatric rehabilitation as a means of accelerating the prospects for social and symptomatic recoveries among the seriously mentally ill. With an attachment to data-based empiricism and hypothesis-testing an emerging interdisciplinary cadre of specialists in psychiatric rehabilitation have derived new assessment and intervention methods from the vulnerability-stress-protective factors model of psychiatric impairment, disability, and handicap. The model is depicted in Figure 50.4-1. The course and outcome of major mental disorders are defined by the following:

1. Impairments are the characteristic positive and negative symptoms and associated cognitive and affective abnormalities of disorders, such as schizophrenia, autistic disorder, and bipolar disorder.

2. Disabilities are the restrictions imposed by impairments on functional life domains such as personal hygiene, medication self-management, recreation for leisure, family, and social relationships.

3. Handicap is the disadvantage experienced by an individual having impairments and disabilities that limits or prevents the fulfillment of normal roles, such as worker, student, citizen, and family member.

FIGURE 50.4-1 Graphical representation of the vulnerability-stress-protective factors framework for understanding the determinants of symptom impairments, disabilities, and handicaps of the major mental disorders. Protective factors buffer or filter the noxious effects of stressors superimposed on enduring vulnerability in producing psychopathology. There is a feedback loop from impairments and disabilities back to vulnerability and stress; for example, improved social skills and coping capacity can mitigate stressors and may even modify neurobiological vulnerability.
Moving mentally disabled persons along the spectrum of impairment, disability, and handicap from poor to good outcomes requires orchestration of protective factors in treatment and community support services. As long as the psychobiological vulnerability factors responsible for the specific syndrome are unknown, interventions cannot directly modify them. Those vulnerability factors, most likely genetically mediated, are enduring: They are present before the manifest symptoms of the disorder emerge as well as during periods of symptom remission and relapse. Similarly, as long as the principles of community care of the mentally ill are adhered to, it is not possible to isolate vulnerable individuals from socioenvironmental stressors. Stressors, whether drugs of abuse or social overstimulation, are a fact of life for the mentally ill—even in the so-called asylums where privacy is absent and violence is omnipresent. Even in the absence of major life events or the noxious effects of illicit drugs and alcohol, vulnerable persons can succumb to ambient levels of tension or conflict in their environments, or to microstressors if they lack the protection conferred by medication, coping abilities, and social support.

Psychiatric rehabilitation must harness the protective factors in both the treatment and natural environments to offset and buffer the adverse effects of stress superimposed on vulnerability. Those protective factors include optimal psychopharmacological interventions that can raise the threshold at which environmental stressors precipitate symptoms in an individual with a given level of vulnerability to a serious mental disorder. But even when pharmacotherapy is prescribed with attention to the highest possible benefit-risk ratio—maximizing therapeutic effects while minimizing side effects—protection against relapse is not assured. Medications must be supplemented by psychosocial interventions that (1) equip patients with personal, social, and vocational coping and competence and (2) galvanize necessary social support services to compensate for the intrusion of symptoms, deficits, and disabilities that even the best system of care cannot eliminate.

The clinical practice of psychiatric rehabilitation joins together three major sets of factors that protect against stigma and vulnerability: (1) pharmacotherapy judiciously keyed to type and severity of psychopathology with doses that do not produce sedation of neuromotor and other toxic side effects that interfere with positive engagement in rehabilitation; development of skills in the patient that are linked to stress and life situations that challenge adaptation and independence; and (3) a range of supportive social services—including housing, transitional and supported employment, financial support, and case management—that can sustain a mentally disabled person in the community. The assumption underlying psychiatric rehabilitation is that disabled persons need maintenance medication, skills, and environmental resources and support to fulfill the role demands of community life.

The organization of truly comprehensive psychiatric rehabilitation is visualized with the three-dimensional diagram shown in Figure 30.4-2. One dimension of the cube represents the stage of the disorder, ranging from prodromal, to acute, to residual phases. The second dimension consists of treatment and rehabilitation modalities, such as drug therapy, family and cognitive-behavioral, social skills training, and vocational rehabilitation. The third dimension is made up of requisite support programs aimed at compensating for disability and minimizing handicap. Those include family education and support, social service entitlements, case management, housing, and psychosocial services. Psychiatric rehabilitation practitioners—following a model for many years through various phases of a disorder—are able to use the multidimensional framework to match treatment and support services to the changing needs of the patient as disability, impairments, disabilities, and handicap at any point in time.

Rehabilitation of persons with chronic and serious mental disorders has had to respond to the transition in locus and level of care from individualized, family-oriented short-term treatment to community-based, family-oriented long-term services.
case from institution to community and from custodial care to social support programs and community mental health centers. The key to successful case management is the role of case management is the key to success in assuring that comprehensive and continuous rehabilitation occurs.

**ASSESSMENT DRIVES REHABILITATION**

The road to rehabilitation must be driven by initial comprehensive assessment and ongoing, periodic assessment of the patient's symptoms and phase of disorder, functional assets and deficits, and personal and environmental resources that can be mobilized for needed services and community support. Assessment and intervention are interrelated and must yield progress unless the treatment team is regularly monitoring the patient's social and vocational skills, motivation and engagement in treatment, timing capacity, and personal sense of well-being.

Comprehensive evaluation and effective treatment planning require integration of the psychopathological and functional state of the patient in a truly biopsychosocial approach. Moreover, the individual, the family, and caregivers must be engaged collaboratively in the assessment and treatment process from the start, with identification of the patient's desired long-term goals and social roles. At a minimum patients should assume a primary role in defining the goals of their rehabilitation. In what way do they wish to live? Do they want to work? What problems are they having with financial resources? Are their options adequately controlled with current treatments? Are personal costs of side effects exceeding their perceived benefits from medication? Those are all questions in which the patient should be at the helm when seeking answers. In addition, patients should be an active resource for developing strategies for attaining those goals. For example, patients should be asked about the effects of current medication and psychotherapeutic regimens when alternative intervention strategies are being considered to address recurring or persistent psychotic symptoms. Moreover, their preference regarding various treatment regimens should be considered to foster the greatest treatment adherence.

Empowering the patient and his or her caregivers as full partners in the treatment and rehabilitation process pays handsome dividends in motivation for change, adherence to treatment regimens and long-term rehabilitation, and improved course and outcome of the disorder. The following case vignette illustrates the key initial process of engagement of the patient and family in rehabilitation assessment and planning.

Mark is a 23-year-old man who experienced the onset of schizophrenia during his last year in college. He was referred to the rehabilitation team after efforts to engage him in treatment had previously failed. He was found to be severely psychotic, evidencing disorganized thinking, paranoid delusions, auditory hallucinations, and bizarre behavior. He had refused earlier efforts to have him take antipsychotic medications because of the side effects he experienced. The information about his psychotic symptoms gathered by using the Brief Psychiatric Rating Scale (BPRS), particularly that relating to disorganized thinking and hallucinations, was shared with Mark. He was specifically told about the importance of symptoms and his daily functioning and was shown the ratings for his symptoms. He was told that the ability of his therapists to gather meaningful information about his social and independent living skills was limited as a result of his psychosis. He agreed to a trial of antipsychotic medication, during which time he would self-monitor his psychotic symptoms using a scale similar to that used in the BPRS. He and his parents were sent home with that scale and were asked to complete the Independent Living Skills Survey, a self-report assessment of daily functioning.

When Mark returned, his psychotic symptoms had decreased from the extremely severe level to the mild and moderate levels. He reported an enhanced self-efficacy since taking the medication and especially noted that he had improved attention and concentration, which allowed him again to read for reasonably long periods of time. That effect was important to Mark because it allowed him to pursue his long-term rehabilitation goal of completing his college education. Close examination of the Independent Living Skills Survey revealed difficulties he was having attending to personal care and self-care and also some basic conversational skills deficiencies. He and the rehabilitation team agreed to address those difficulties during their initial work together.

**FUNCTIONAL ASSESSMENT AND REHABILITATION PLANNING**

Efforts to treat and rehabilitate persons with chronic and serious mental illnesses are doomed to fail unless they are linked to self-identified goals and desired life roles. All too often, interventions are planned without even soliciting patients' input. To that end it is useful to separate the evaluation
process into two overlapping but distinct procedures: functional assessment and symptom assessment. Assessments are best done with the aid of structured interviews that elicit information about symptoms, social and vocational functioning, family history, and family emotional climate.

Rehabilitation cannot proceed until an empathic and systematic inquiry is made into the goals and desired life roles patients identify for themselves, the skills they possess that facilitate their meeting those goals, and the behavioral deficits or disturbances that may impede personal growth and progress. The data are collectively seen as the raw material of a functional assessment. They are particularly useful in social skills training and rehabilitation-focused case management. In Table 50.4-2 are listed the steps taken in a functional assessment of a patient with a serious mental disorder.

Functional assessment steers psychiatric rehabilitation through its many phases, allowing the practitioner to specifically target interventions to the patient's deficits in a fashion appropriate to the patient’s stage of impairment and disability. In a functional assessment the clinician works with the patient to identify individual goals, the strengths and adaptive skills that facilitate progress, and the deficits and excesses that impede goal attainment. Once impairments such as psychiatric symptoms or cognitive deficits are identified, specific interventions can be linked to targeted problems, such as pharmacotherapy, skills training, or social prostheses.

Goal setting is perhaps the most critical stage in functional assessment and psychiatric rehabilitation, for if interventions are offered that are incongruous with the patient’s perceived needs and goals, poor compliance often results. Unfortunately, that stage of rehabilitation planning is the most difficult to accomplish, and many clinicians do not feel comfortable engaging their patients in discussions about life goals. Commonly cited factors include concerns that patients will identify unreasonable or unrealistic goals, or that setting goals may be a demoralizing process for the seriously impaired. In fact, the process of goal setting can strengthen the therapeutic alliance, enabling the clinician and patient collaboratively to confront challenges. Commonly identified goals include reintegration into families, maintenance of secure housing, obtaining employment or pursuing occupational objectives, and establishing social networks.

Once goals are established, the patient is engaged in identify.

| TABLE 50.4-2
| Procedure for Functional Assessment of a Person With a Serious Mental Disorder |

1. Involve the person in developing overall rehabilitation goals
   - What functional life roles are desired by the person?
   - Help the person to define his or her desired life roles by inquiring, “What would you like to be different in your life?” or “What are your current dissatisfactions in your daily life?” or “How might your life be more satisfying to you—what kinds of changes would you like to make in your routine or daily life?”
   - Assist the person to move from grandiose and unrealistic fantasies to articulating the more proximal and immediate, realistic changes and steps that must be accomplished before the longer-term goals can be reached.
   - Define overall rehabilitation goals in terms of occupational, student, friendship, family, and residential roles.
   - Have the overall goals endorsed and validated by the person, family members, caregivers, and professionals involved—as being realistic and attainable.

2. Conduct a biopsychosocial assessment of the person's current functional status
   - Inventory of assets and resources
     - What is the person's highest previous or current level of functioning in social, educational, and occupational roles?
     - What is the previous best level of symptom remission?
     - What social and independent living skills does the person currently possess and use? (Independent Living Skills Survey)
     - Determine the cooperativeness and collaboration of the person and his or her professional, family, and other caregivers in working together toward common goals.
   - How much insight into illness and disability does the person have?
     - What is the person's current motivation for change and what intrinsic and extrinsic reinforcers can be mobilized to motivate change? (Reinforcer Survey)

3. Specify long- and short-term goals
   - Long-term goals should be cast in monthly to yearly timelines and should articulate with overall rehabilitation goals and serve as vehicles for achieving progress toward functional life roles.
   - Long-term goals should be comprehensive in subserving progress in all relevant domains of life functioning (social/interpersonal, medical/psychiatric, financial, housing-residential, activities of daily living-independent living skills, recreational, vocational-educational).

   - Short-term goals should be cast in daily, weekly, or monthly timelines and should articulate with long-term goals as stepping stones or subgoals.

   - Goals should be developed and operationalized from information and data available and emerging from functional and symptomatic assessment, available resources, and accessible treatment and rehabilitation services.

   - Treatment and rehabilitation interventions should be key or linked to the attainment of short-term and long-term goals.
impede mental and physical growth. The patient may develop his or her own adaptive skills, deficits, and resources. When asked about obstacles that might block progress, patients identify various psychiatric symptoms, illicit drug use, side effects from prescribed medications, inadequate social and independent living skills, alienation from families, and lack of money and housing. Adaptive skills such as coping with mental illness, interpersonal negotiation skills, family bonds, and friendship skills can be identified and reinforced. The following case vignette illustrates the process.

Keith is a 26-year-old man who was recently diagnosed as having paranoid schizophrenia. When psychotic symptoms were controlled with antipsychotic medications, he engaged in a rehabilitation planning effort with an occupational therapist who was a member of a community mental health center treatment team. When first asked to identify his goals, he said he wanted to enter college and complete his bachelor's degree. He had not been in school for 6 years and said he wanted to major in a full-time student in a prestigious school in engineering. The therapist thought that goal was unrealistic. On further exploration, it was learned that Keith had felt happiest when he was in school, and he now thought this would be the best way to realize his goal of being happy and independent.

Once the goal of becoming independent and more pleased with himself was identified, Keith was helped by his therapist to set as a long-term goal resumption of his schooling at a local trade school. He then began to work with his therapist to target skills and deficits in the areas of time management, organizing his scheduled activities, and self-assertion. He saw those as essential to prepare for his goal of entering college. He had been an organized person with good study habits prior to developing his illness, so those were seen as potential assets. His basic conversational skills were more than adequate, but he needed training in speaking up to obtain his needs in the classroom, with teachers and with peers. He had prerequisite resources to engage in the recommended training sessions, namely, time, a car for transportation, and the availability of social skills training services at his local community support program. Six months later, after benefitting from structured and systematic skills training, he entered a course in automotive mechanics at a vocational school.

While structured diagnostic and psychopathology instruments are widely known for assessing symptoms, clinicians are less aware of instruments that can be used to establish the functional diagnosis and prognosis and the rehabilitation intervention plan. Functional assessments can be done with observational, interview, or self-report instruments that focus on the patient's performance in self-care, social, family, recreational, vocational, and financial domains. Instruments should be selected for use in clinical practice that are congruent with the purposes and logistics of the assessment; thus, time sample behavioral observations are useful in residential settings, while interview and self-report formats are more suitable for outpatients. Figure 50.4-4 shows an excerpt from the Independent Living Skills Survey, which can be used to elicit information on a patient's deficits and assets that is directly relevant to setting goals and selecting rehabilitation interventions.

While the practice of most medical specialties has long been guided by periodic, objective measurement of indices of disease and physiological function, it is only in recent years that instruments have become available for monitoring patient progress in psychiatry, and primarily in clinical research. However, a new and user-friendly instrument—the Treatment Assessment and Planning Evaluation System (TAPES)—has been designed, implemented, and disseminated for use throughout California.

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**Domains of Functioning With Sample Items**

- **Eating**—Eats at regular pace without bolting, dawdling (without prompting).
- **Grooming**—Bathes or showers using soap at least twice a week (without prompting).
- **Sleep**—Can go to sleep within an hour after bedtime (without prompting).
- **Activities of Daily Living**—Keeps room clean (without prompting).
- **Health**—Reports physical problems appropriately, neither over- nor underreporting.
- **Money Management**—Manages money, planning how funds will be spent.
- **Transportation**—Acts appropriately on buses, trains, or airplanes (without prompting).
- **Leisure**—Works regularly on a hobby.
- **Job Skills**—Contacts friends, peers, social worker, employment agencies for job leads (without prompting).
- **Social Relations**—Interacts daily with family, friends, or casual contacts in a congenial manner.

**Scales—Rate for Past Month**

1. Frequency of occurrence

<table>
<thead>
<tr>
<th>N/O</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>No opportunity</td>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Usually</td>
<td>Always</td>
</tr>
</tbody>
</table>

2. Degree of behavioral problem or disturbance to others

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Occasionally</td>
<td>Sometimes</td>
<td>Frequently</td>
<td>Always</td>
</tr>
</tbody>
</table>

3. Global level of functioning

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not successful in adjusting to the demands of day-to-day life in the community</td>
<td>Extremely successful in adjusting to the demands of day-to-day life in the community</td>
<td></td>
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<td></td>
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*Figure 50.4-4: Excerpt from the Independent Living Skills Survey, data from which are used in formulating a rehabilitation plan. The survey measures nine domains of functioning required for community integration (with required supervision and prompting) exercised by the patient in each domain and the degree to which deficits from each domain create problems for the patient, the patient's family, caregivers, or significant others.*
mental health programs for both initial assessment and follow-through monitoring. TAPES is a consumer-oriented, standardized assessment instrument that yields a cross-sectional profile of a patient's clinical status, including the patient's own appraisal of current quality of life and priorities for treatment and rehabilitation. Thus, clinicians using TAPES empower patients to be active participants in the assessment, planning, and monitoring of their own treatment and rehabilitation. TAPES includes interview and clinical observational methods for evaluating symptoms, cognitive status, psychosocial functioning, and bizarre and intolerable behaviors, such as aggression, suicidality, and incontinence. It yields information that naturally leads to the formulation of treatment and rehabilitation goals as well as providing informational feedback on the patient's progress over months and years.

CLINICAL CASE MANAGEMENT

Since the onset of the deinstitutionalization movement, the organization, coordination, and delivery of the full array of psychosocial and biomedical services have been addressed through the provision of community-based case management services. When carefully integrated with the full spectrum of psychiatric and social services required by persons with disabling mental disorders, assertive forms of case management that reach out to the patients and do what is necessary to maintain and stabilize them in the community have been documented to be effective in markedly reducing rehospitalization while being cost-effective. But case management as a clinical intervention cannot be justified primarily by reductions in service utilization and containment of cost. A case management system that increases service utilization for homeless mentally ill, moving them from bus stations, shelters, and alleys to hospitals and housing, should be seen as a success, not a failure.

As experience with case management has grown, its prototype has changed from that of a broker of services to that of an intensive clinical service provider and advocate. Intensive case managers attempt to wrap needed services for community function and adaptation around each client, with the type and amount of services matched to the individualized clinical status, values, and phase of illness. The Madison, Wisconsin, innovation, termed "Training in Community Living," a model of broad-spectrum case management organized in round-the-clock continuous treatment teams, has been replicated throughout the United States and abroad in both rural and urban settings. What has been lacking, however, is a general consensus as to which elements of the case management process, listed in Table 50.4-3, are most clinically useful.

The limited number of empirical studies of case management have serious methodological problems, and most do not adequately define the form and process of case management they report. It is generally agreed that case management is a desired service for individuals with chronic mental illness, but models of delivery vary widely, with differing emphasis placed on its main components of advocacy, service linkage, counseling, and skills development. Integration of innovative rehabilitation technology, such as social skills training, with case management has not been fully realized or tested. A tripartite model for the essential domains of professional competencies defining clinical case managers is shown in Figure 50.4-5.

VALIDATION The current state of research inquiry into case management services is at a point that requires studies to articulate the model of case management and test its efficacy with widely accepted outcome indicators. What has been lacking are well-designed and controlled studies with randomization clearly operationalized and faithfully delivered models of care management; and careful examination of outcomes such as symptomatic status, relapses, acquisition and generalization of social and independent living skills, vocational outcomes, quality of life, and service utilization. Without that, one is left to compare different models of clinical case management in markedly different care systems, with poorly defined or heterogeneous patient populations.

The few published controlled studies have demonstrated that case management leads to increased outpatient service utilization, decreased hospital recidivism, and modest gains in clinical status and the quality of life. The main problem in generalizing results is that most studies do not adequately define the activities that comprise a given model of case management or evaluate the relationship between process and outcome measures; thus it is hard to reckon which service elements are responsible for the various outcome domains. For example, when a case manag...
REHABILITATION SERVICES

An array of rehabilitation modalities and community support services must be made available to chronically and seriously mentally disabled persons to help them achieve optimal functioning and a reasonable quality of life. Case management services are responsible for orchestrating the panoply of treatment and support services, sometimes through the mechanism of case managers directly providing the services and sometimes through their brokering the services. The central organizing role of case management for the delivery of essential clinical treatments of disabling mental disorders, such as schizophrenia, has been recognized in the Practice Guidelines for Schizophrenia that have been promulgated by the American Psychiatric Association.

SOCIAL SKILLS TRAINING  Social skills training is defined by behavioral techniques or learning activities that enable patients to acquire instrumental and affiliative skills in domains required to meet the interpersonal, self-care, and coping demands of community living. The typical skills training session is conducted educationally as a class with one or two therapists as trainers and 5 to 10 mentally ill patients. Sessions are conducted from 45 to 90 minutes, depending on the patients’ level of concentration and symptom control, and meet one to five times a week. Because most mentally disabled persons have pervasive deficits in social functioning, skills training should become a central element in their long-term rehabilitation. It is not unusual for skills training to be offered for years as the person’s abilities, goals, and values ascend a hierarchy of community adaptation. Trainers draw on learning activities, such as those listed in Figure 50.4-6, to help patients master each skill area.

In conducting social skills training, therapists engage patients in goal setting and motivational enhancement. Patients are given an understanding of how the skills to be learned can help them achieve their own personalized needs and desires. For example, in generating motivation to participate in a conversation skills group, patients are given illustrations of how conversation can mediate friendships, dating, and job success. The component skills that comprise the skill area are next presented to the patients as targets of learning. For example, a trainer leading a basic conversation skills session aimed at teaching patients how to start a friendly chat would say:

“In this skill area, you’ll learn three skills that you need in order to start a friendly conversation. First, you’ll learn how to find places where there are people to talk to. Second, you’ll learn how to find people who are willing to talk to you. Finally, you’ll learn how to find topics of conversation. For example, one way to find a topic is by observing what another person is doing and using that activity as your topic to start a friendly conversation.”

Modeling is used next to give patients an opportunity for vicarious learning. Using prearranged situations or situations taken from participants’ everyday lives, the skills are demonstrated by the trainer or by peers in the group. One way to enhance generalization is to model speaking aloud the subtle steps that are involved in successfully completing the skills.

“Wow, I’m supposed to go up and start a conversation with that girl. But I’m scared she might turn me down. Wait a minute. I remember in class that it is a good idea to start a conversation about what another person is doing. Let’s see, she’s sitting over there knitting a sweater so I could start by talking to her about knitting.”
Patients are then provided opportunities to try on the new skills in guided role-plays. Specifically, patients practice interpersonal situations from their lives that involve the targeted skill and are asked to role-play a response using that skill. Trainers provide active coaching during the role-play and give generous positive feedback after the role-play by rewarding approximations to the targeted behavior. Critical feedback can be counterproductive and should generally be avoided or couched in constructive terms.

After patients have demonstrated some mastery of skills in the supportive context of role-playing, they are given homework assignments to facilitate transfer of newly acquired skills into the community. Homework assignments are more likely to be successful when patients are given specific tasks to do in their community (for example, "Go home tonight and ask your roommate to play cards with you for 10 minutes") and when they are helped, in advance, to anticipate obstacles to success and to engage in problem solving exercises to overcome these obstacles. Trainers should also accompany patients into their real-life settings to provide coaching in vivo as well as liaison with the patient’s natural caregivers to ensure that opportunities and encouragement will be made available to use the skills. Subsequently, patients need to be reinforced for homework-related efforts.

Variants of social skills training Social skills training can be conducted in the context of individual, family, or group therapy. Goals can be individualized to fit the functional and symptomatic needs of each patient or can follow a prescriptive format in which preset goals are pursued that have general relevance for a large proportion of the patient population. Thus, most

patients with chronic schizophrenia can benefit from educational curricula that teach medication and symptom self-management, grooming, social conversation, self-directed recreation, management of personal finances, and family communication. Two types of skills training have been used effectively to remediate the deficits of persons with severe and persisting mental disorders: training of verbal and nonverbal expressive skills in response to specific situational expectations and personal needs and training of cognitive skills that include accurate social perception and problem solving.

Behavioral response training In behavioral response training a task analysis is conducted of the interpersonal situation, and socially acceptable responses are targeted as goals for the patient. It is assumed that each situation calls for a set of discrete verbal, paralinguistic, and nonverbal skills which, when combined, yield a competent social response. For example, to be a proficient conversational partner, an individual needs to use appropriate forms and amounts of eye contact, facial expression, voice intonation, and interpersonal distance as well as judicious amounts of self-disclosure and social curiosity. Helping patients to learn to combine those specific behaviors closes the gap in their social ineptness.

While abundant research has documented the efficacy of this variant of skills training in reducing deficits in expressive behavior, it has been criticized for its reflexive and limited view of social interactions. Impaired processing of social information has been proposed as a more comprehensive model for understanding the social deficiencies of chronic mental patients. Thus, diminished sensitivity to social cues, inability to comprehend interpersonal problems and to generate relevant solutions, poor comprehension of rule-governed social behavior, and deficits at the discourse level of linguistics have been implicated as the core limitations in the social behavior of persons with schizophrenia and other chronic mental disorders.

Cognitive, information-processing model of training Skills training methods that follow a cognitive perspective teach patients to use a set of generative rules that can be adapted for use in various situations. For example, a six-step problem solving strategy has developed as an outline for helping patients to overcome interpersonal dilemmas: (1) adopt a problem solving attitude; (2) identify the problem; (3) brainstorm alternative solutions; (4) evaluate solutions and pick one to implement; (5) plan the implementation and carry it out; (6) evaluate the efficacy of the effort and, if ineffective, choose another alternative.

While the stepwise, structured, and linear process of problem solving occurs more intuitively and without conscious awareness in normal persons, it can be viewed as an interpersonal prosthesis or crutch for cognitively impaired mental patients to cope with the vast amount of information needed to obtain the social and personal needs.

Modules for training social and independent living skills Based on the cognitive model of social skills training, a set of psychoeducational modules has been developed at the University of California at Los Angeles (UCLA) Clinical Research Center for Schizophrenia and Psychiatric Rehabilitation with the objectives of (1) teaching patients basic social and instrumental competencies of key domains of community functioning, and (2) being easily and accurately used by interdisciplinary professionals and paraprofessionals in a wide array of mental health facilities. The domains include self-management of antipsychotic medication, coping with psychotic symptoms, grooming, personal hygiene, recreation for leisure, interpersonal problem solving, job finding, community reentry, safety and satisfying sex, family-conduit smart, and engaging in friendly conversations. Those domains were chosen because competency in them has been associated with longer community tenure and lowered risk for relapse and rehospitalization.
Each module uses the same highly structured and thoroughly specified instructional techniques so that even paraprofessionals can use them with a minimum of training and consultation. The techniques also compensate for patients' cognitive dysfunctions by employing overt, visual as well as auditory instruction, and in vivo training.

Each module is a self-contained package that can be adopted alone or in combination with other modules in comprehensive rehabilitation programs.

The training modules have been constructed to teach patients specific functional skills, solve problems that may be encountered while attempting to use newly learned skills, and practice the skills in the natural environment. That model of social skills training offers considerable promise for those patients who have the cognitive capacity for learning social skills in small groups. Each module is divided into separate skill areas, with each area having specific behaviors that are taught in order to achieve personal effectiveness and competence. For example, the Medication Management Module contains skill areas on (1) understanding the benefits of antipsychotic medication, (2) acquiring the skills of medication self-administration, (3) coping with the side effects of medication, and (4) negotiating medication issues with health-care providers. Similarly, as shown in Figure 50.4-7, the Symptom Management Module is comprised of four specific skill areas: (1) identifying the early warning signs of relapse; (2) managing a problem; (3) coping with persistent symptoms; and (4) avoiding street drugs and alcohol.

Each module is composed of a prescriptive clinician's guide, a videotape demonstrating the skills to be learned, and a patient's workbook containing practice exercises and monitoring forms. Skills are taught using a combination of focused instructions, videotaped demonstrations, role-played rehearsals, and videotape feedback, and practice in the natural environment through in vivo exercises and homework assignments. Patients proceed through each skill area in a specific sequence of learning exercises and activities, starting with an introduction that aims to highlight the values and advantages of the module. The training procedure emphasizes the "discovery learning" method as opposed to expository teaching.

**INTRODUCTION TO THE MODULE**

The objective of the first learning activity in the module is to help patients identify the goals of the module, the consequences that will occur if the goals are achieved, and the steps needed to achieve each goal. In addition, patients are introduced to the language that will be used in various aspects of training. The introductory exercise consists of a brief description of the module and the topics and goals to be covered in each skill area. Questions such as the following are asked until all patients can answer them correctly.

1. What is the goal of this module?
2. What are the problems addressed by this module?
3. If you achieve the goal, what will happen?
4. Do you have time, money, skills, and people to help?
5. What are the steps required to achieve the goal?

The purpose of the introduction is to inculcate realistic and favorable expectations and instill motivation to continue module training. The major goal at this stage is to encourage the patients to think and talk about the material they are about to learn. The therapist concentrates primarily on establishing a highly reinforcing environment rather than on the correctness of patients' responses. However, if patients respond incorrectly to any question, the trainer asks an additional set of ever-

**Skill Domains**

- Interpersonal
  - Basic conversation
  - Recreation for leisure
  - Assertiveness
  - Problem solving
  - Dating and friendship

- Self-Care
  - Hygiene and grooming
  - Clothes and maintenance
  - Money management
  - Basic nutrition
  - Finding a job

- Coping with Illness
  - Medication management
  - Street smarts
  - Symptom management
  - Relaxation
  - Relapse prevention

**Skill Areas in Medication Management Module**

- Obtaining information about antipsychotic medication
- **Knowing correct self-administration of medication**
- Identifying side effects of medication
- **Negotiating medication issues with health-care providers**
- Understanding the effects of depot medication

**Module: Medication self-management**

**Skill area: Negotiating medication issues**

**Requisite behaviors:**

- Pleasant greeting
- Describe problem specifically
- Tell length of occurrence
- Describe extent of discomfort
- Specifically request action
- Repeat/clarify advice/orders
- Ask about expected time for effort
- Thank for assistance
- Good eye contact
- Good posture
- Clear audible speech

Each module is divided into separate skill areas with each having specific behaviors that are taught for personal effectiveness.

58 50.4-7 Domains of skills training with skill areas in the Medication Management Module. The fourth skill area comprises specific verbal and nonverbal behaviors that are the educational objectives taught in this skill area.
more leading questions designed to prompt patients to give the correct answer.

**TRAINING SKILLS** Following the introduction, training progresses through the various skills that patients have identified. Training involves two basic sets of procedures. First, patients view a videotaped demonstration of the correct performance of the skill they are about to learn. The tape is periodically stopped and patients are asked questions to assess their attentiveness and comprehension of the information presented in the videotape demonstration. Incorrect answers result in a replay of the videotape and highlighting of the information needed to correctly answer the question when it is repeated.

Next, patients are asked to practice in a role-play exercise the skills they have just learned. This performance is videotaped for subsequent review by patients and the therapist. The therapist evaluates the performance and provides positive feedback and suggestions for improvement. The role-play with video feedback learning activity is depicted in Figure 50.4-8. The role-play is then reenacted and the process is repeated until the patient exhibits mastery.

**PROBLEM SOLVING** The training protocol recognizes that patients may encounter obstacles that make it difficult for them to achieve expected outcomes as they perform their newly acquired skills. Training in problem-solving skills is designed to teach them methods that they can use to overcome the obstacles. The problem-solving model employed is a five-step procedure that includes a definition of the problem, generation of alternative responses to solve the problem, evaluation of the alternatives in terms of their potential positive and negative consequences, choice of an alternative based on the evaluation, and implementation of the chosen alternative. Patients are taught how to overcome two types of obstacles: resource management problems and outcome problems.

The training in solving resource management problems is designed to teach patients methods of gathering the resources necessary to implement a particular medication or symptom management skill. For example, even if training in the Symptom Management Module has taught an individual the skills needed to request an appointment with the psychiatrist to evaluate a prodrome, the patient must have access to certain resources such as a telephone to make an appointment and transportation to visit the doctor. A set of resource management problems is presented during the training of each skill in each of the modules. The therapist describes a skill and asks the following series of questions:

1. What is your goal in using this skill?
2. What resources must you have in order to carry out the skill?
3. How would you obtain the resources?
4. If you were to obtain the resources, what positive consequences would happen?
5. If you were to obtain the resources, what negative consequences might happen?
6. Do the positive consequences outweigh the negative consequences? If yes, the method generated by patient is role-played; if no, the patient is asked what else he or she would do?

The training in solving outcome problems teaches patients how to respond when the environment fails to provide the expected outcome following the performance of a particular skill. For example, if a patient arrives for an appointment with the doctor only to find that the doctor has been called away to an emergency, what must he or she do to solve the problem? The training methods are similar to those used during the training in resource management problems.

Training begins as the therapist describes an obstacle that might be encountered as patients attempt to use their skills. Patients are then asked a series of questions that engage them in the problem-solving model:

1. What is the problem?
2. Do you have the time, money, skills, and people to help?
3. What can you do to solve the problem?
4. Is the chosen method feasible?
5. If you use the chosen method, are you likely to achieve your goals?
6. If you were to use that method, what positive consequences would happen?
7. If you were to use that method, what negative consequences would happen?
8. Do the positive consequences outweigh the negative consequences? If yes, role-play the alternative generated by the patient; if no, what else would you do?

**PROMOTING GENERALIZATION** It is important that patients have the opportunity to practice newly learned skills in the natural environment as an additional step toward programming for generalization. Skills that can only be used in the context of the clinic are of little use to the patient. In vivo exercises are used to facilitate the transfer of training. Essentially, the patient performs the skills in his or her world. However, a therapist accompanies the patient in order to prompt and reinforce the patient's performance, as well as to provide constructive feedback. The exercises are arranged to present increasingly difficult situations that require extending skills beyond the training provided in the clinic.

An example in the Medication Management Module is an exercise in which the patient (and therapist) generate questions regarding the patient's anti-psychotic medication and then ask a pharmacist to answer the questions. Following that the patient may be encouraged to ask the same or similar questions of the ward physician or a local pharmacist. In each in vivo exercise the therapist helps the patient fine-tune his or her performance while identifying needed resources and anticipating obstacles that may occur. For example, during the exercise the pharmacist's business card. The role of the therapist in the exercise is to provide feedback to patients regarding their performance.

**Validation** Meta-analyses of the more than 30 controlled studies of social skills training for schizophrenic patients have revealed significant favorable effects of that modality on symptomatology, relapse, and rehospitalization; the acquisition and durability of skills; and, more equivocally, generalization of skills to real-life situations.

Although effects of training have been shown to be present for up to two years after training was completed, the transfer of the skills learned to settings outside the clinic or to a broader array of social behaviors other than those specifically targeted for training has not been as well documented as the initial acquisition of skills. One reason for the lack of robust data on the
The generalization of social skills training is the failure of clinicians and investigators to promote actively those ingredients in the natural environment that would ensure generalization, namely, providing opportunities and encouragement to use the skills and tangible rewards for using the skills. Generalization of skills into natural settings does not happen automatically; the process requires active efforts by case managers and other clinicians who must learn how to "run interference" for the patients' tenuous and tentative efforts to apply the skills that they ardently learn in a clinical setting. The organization of skills training into modules, as described earlier, exemplifies principles for promoting generalization.

One recent advance in rehabilitation has been the combination of modular social skills training with low-dose antipsychotic medication, a therapeutic strategy aimed at minimizing neuroleptic side effects that can intrude on social functioning while equipping patients with the knowledge and skills to do a better job of managing their illness. When patients learn, through skills training, to identify the early warning signs (prophylaxis) of relapse and to seek early intervention to avert relapse, outcomes are markedly improved. There are fewer relapses and significantly improved social functioning. Current innovations are incorporating training in social problem solving skills, as well as interventions by case managers or therapists to give patients opportunities and encouragement to use the skills in their natural living and working environments, with the newer, atypical antipsychotic drugs that have greater efficacy with negative symptoms of schizophrenia.

As the research literature on psychiatric rehabilitation has grown, concerns about the efficacy and applicability of interventions in the field also has mounted. Criteria have been established, as depicted in Table 50.4-4, for the evaluation of the quality of studies purporting to document the efficacy of social skills training and other interventions. While the majority of studies on social skills training have met most criteria listed in Table 50.4-4, some problems in the quality of the studies have included failure to use structured diagnostic interviews for determining diagnoses, lack of reporting and controls on concomitant regimens of medication and case management, and lack of active treatment contrast or comparison conditions for addressing the specific versus nonspecific effects of skills training. Those deficiencies in methodology are being addressed in current treatment research. For example, modular skills training combined with low-dose antipsychotic drug therapy has been shown to yield significantly better results in the scope, intimacy, and subjective satisfaction of schizophrenic persons with social relationships than has equally intensive supportive group therapy.

Another means of evaluating the impact and utility of social skills training is through professional validation: the extent to which the modality is being implemented by practitioners and by mental health facilities. The modules for training social and independent living skills developed at the UCLA Clinical Research Center for Schizophrenia and Psychiatric Rehabilitation have been implemented by over 1,000 private and public hospitals, community support programs, mental health centers, and practitioners in private practice. A survey of users of the modules found that 61 percent of the respondents were using the modules regularly, with another 36 percent planning to institute or reinstitute the modules when administrative and logistical obstacles were overcome.

Even in a former bastion of psychoanalytic approaches, the Massachusetts Mental Health Center, a teaching hospital of Harvard Medical School, skills training modules have been implemented on a residential unit, in the Day Hospital, and in outpatient services; moreover, psychiatric residents are being taught how to deliver the active and directive modality. The modules have also been translated and implemented with effectiveness in Japan, Korea, Poland, Norway, Sweden, France, Italy, Germany, and Switzerland. International replications of the efficacy of social skills training have led to its endorsement as a key element in the Practice Guidelines for Schizophrenia of the American Psychiatric Association.

Three types of rehabilitative interventions that overlap with social skills training in terms of treatment goals and behavioral learning principles are (1) family skills training and psychoeducation, (2) token economy and social learning programs, and (3) cognitive remediation. The choice of a particular rehabilitative modality will depend on the ascertained needs of an individual as determined through symptomatic and functional assessment, the phase of illness, level of incapacity, structure and supervision required, and the availability of resources to deliver the services. Thus, individuals with serious cognitive, functional, and symptomatic problems, who need frequent prompts and reinforcement for learning basic life skills, would benefit from a token economy, if one were available in an accessible residential or day-treatment program. Patients who are in contact with their family members in situations where the family emotional climate is stressful would benefit from participating with relatives in a psychoeducational and skill-building program aimed at improving communication and problem solving. Cognitive remediation is a newer treatment modality that has yet to prove its clinical validity but represents the cutting edge of treatment development for the enduring attentional, memory, and executive dysfunctions noted among schizophrenic persons that are rate-limiting for rehabilitation progress.

**FAMILY PSYCHOEDUCATION**

Barriers to the generalization of social and independent living skills can be expediently removed by involving the family as well as the sick relative in a collective enterprise of (1) education about the designated patient's particular mental disorder and the ways to obtain professional and community services for the disorder, (2) training in communication skills, and (3) using communication skills in the systematic application of problem solving. Because the family comprises an important part of the patient's natural support system and living environment (even chronic mentally ill patients living apart from their relatives may maintain significant contact with them), improving the family's attitudes, knowledge, and coping skills regarding serious mental illness can be rapidly translated into better opportunities, encourage-
ment, and reinforcement for using skills learned in the family therapy arena as well as in other rehabilitation settings.

Many international studies have replicated the findings that family stress—as reflected in high expressiveness, emotion attitudes of criticism and emotional overinvolvement toward the mentally ill relative—is the most powerful predictor of relapse in schizophrenia and mood disorders. Therefore, several modes of family intervention have been designed and empirically validated for the ability to equip relatives with coping skills and thereby change the emotional climate of the family and reduce the incidence of relapses and rehospitalizations. From the vantage point of the vulnerability-stress-protective factors model of serious mental illness families are viewed as struggling with the stress of positive and negative symptoms and disability of their severely mentally ill relatives. In an interactive process the stress load produces demoralization, tension, and emotional and financial burdens on the family, while it can precipitate relapse in the index patient who has fragile coping capacity and significant psychobiological vulnerability to stress.

Disavowing the now anachronistic and antitherapeutic theories of the past that implicated family interaction in the etiology of schizophrenia, clinicians now engage relatives as essential allies in the treatment process. The needs of family members for coping skills and social support are recognized, given their serving as the primary caregivers of the individual with a chronic and disabling mental disorder. After an initial period of assessment and abreaction with individual members of the family unit, the family begins a psychoeducational process aimed at learning what is known scientifically about the patient’s mental disorder. Topics might include information about positive and negative symptoms, effects of psychotropic medications, and treatment options in psychiatric rehabilitation. Actual material is typically presented during the first half of an education session followed by a guided discussion in which families are helped to personalize their learning with comments or questions regarding their own experiences. Sometimes patients attend the meetings, where they are invited to explain various points about symptoms and treatments in terms of their own experiences. In many areas of the United States self-help groups like affiliates of the National Alliance of Mentally Ill or local mental health associations have shared the education function.

To produce durable clinical effects family interventions must go beyond education to train family members in necessary coping skills including basic communication, problem solving, and contingency management. Families are better able to address recurring difficulties associated with patients' symptoms and disabilities when those skills are added to their behavioral repertoires. Skills training strategies similar to those reviewed in the previous section of the chapter are used to help individual families learn to interact in more constructive and goal-oriented ways. For example, the six steps of problem solving are taught using real-life problems faced by the family as the training vehicle. One family member often is chosen as leader of a problem solving session and guides the family through a process, as depicted by the family group in Figure 50.4-9.

Most of the members of the Hannah family have been concerned about John's smoking in his room at night. His parents, Jackie and George, were particularly worried that John might fall asleep smoking in bed and start a fire. Using the problem solving steps they have learned in the family skills training sessions, the parents decided to call a meeting to discuss the matter. The Hannah family rotated leadership of the meeting each session; today it was John’s sister Beth’s turn to review the steps.

Although John first saw the problem as his parents' nagging him about his smoking habits, with gentle pressure from Jackie and Beth, John soon agreed with the others that he had a problem with smoking in his room at night. Beth then encouraged everyone to generate solutions to the problem. Jackie said that John should be encouraged to learn new ways to stop smoking and thought he should be rewarded $1.00 each day he went without smoking in his room. George did not like the idea because he thought this would only coddlle his son. Beth reminded George that the family should only evaluate the solutions after several had been generated and challenged him instead to come up with a solution. George retorted that they should take away John's smoking privileges altogether.

After listing six solutions the group reviewed the pros and cons of each alternative. Family members were then asked to vote on the worth of each solution. Four out of five agreed that “finding John another place to smoke at night” would be a good alternative. To implement the solution, Beth volunteered to help John walk through the house after the meeting to find a safe and quiet place to smoke between 8:00 and 10:00 PM. They agreed that the basement family room would be just such a place. The plan was to start the next night, and a week later the group was to reconvene and discuss progress.

Next week it was George’s turn to lead the family meeting. Under his guidance the group discussed whether the frequency of John’s bedroom smoking had decreased. John reported that he had smoked in his room at night only once the preceding week, which everyone was happy about. Jackie however said she now found watching TV in the family room a bit unpleasant at night because of John's smoke. Because the original target of bedroom smoking had decreased markedly, the family decided to wait a week before deciding whether and how to tackle the smoke problem in the family room.

Validation: Seven well-controlled studies in the past decade have examined the effects of family psychoeducation and coping skills training on patients and their families. Results showed that the rate of relapse and subsequent hospitalization for patients who participated in that type of treatment was significantly less than for patients who completed various comparison treatments. In one study only 6 percent of patients who participated in behavioral family management's problem solving treatment with their families relapsed in a nine-month period following treatment while 44 percent of the controls in the group receiving individual supportive therapy relapsed. Over two years, only 11 percent relapsed in the family program versus 78 percent of the patients who received supportive therapy. Moreover, the patients who participated in behavioral family management gained significantly more in social adjustment while requiring less overall neuroleptic medication. The components of behavioral family management, now replicated in two subsequent studies, are listed in Table 50.4-5.

Conducting family psychoeducation and skills training in multiple family groups offers not only a more cost-efficient format but also a venue for strengthening interfamilial networking and support. Participating in a multiple family group can reduce the stress, isolation, and stigma experienced by family members: the burden of care no longer seems so unique and different families can exchange helpful suggestions and...
TABLE 50.4-5
Component Interventions Comprising Behavioral Family Management

| Behavioral analysis of all members of the family against the back of the house. |
| Identifying reinforcers. |
| Education of all family members on nature of the illness (for example, schizophrenia) and currently available treatment and rehabilitation modalities. |
| Training in communication skills |
| Expressing positive feelings to others and acknowledging when others do or say something positive toward you. |
| Active, reflective listening |
| Making positive requests and asking for what one wants |
| Expressing negative feelings in constructive ways |
| Training in problem-solving skills |
| Being specific and objective in describing the problem. |
| Expressing how one feels directly and subjectively about the problem |
| Listening to each other actively and reflectively as the problem is described and feelings are expressed |
| Helping each other generate alternatives and options in dealing with the problem |
| Weighing the potential consequences or outcomes (risks and benefits, pros and cons) of each alternative |
| Choosing a reasonable alternative |
| Deciding how to implement the alternative |
| Behavioral interventions for specific problems |
| Contingency management for negative symptoms |
| Job-finding skills training |
| Friendship skills training |
| Independent living skills training |
| Realistic and incremental expectations for performance |
| Reinforcing process through successive approximations (shaping) |

Direct remediation of basic cognitive deficits

Demonstrations have shown that laboratory-based measures of cognitive dysfunctions—such as reaction time, memory, card sorting, span of apprehension, and vigilance—can improve significantly with behavioral training. As shown in Figure 50.4-10, the patient participating in this form of cognitive remediation is typically seated in front of a computer screen and instructed to repeat multiple trials on vigilance, memory, reaction time, discrimination, or concept tasks. As a rehabilitation instrument, the computer provides extraordinary versatility by providing consistent and repeated trials, while monitoring patients’ responses and adjusting test stimuli and consequences to shape gradually improving performance on the cognitive task. In addition to instructions patients undergoing cognitive remediation are also given positive reinforcement—in the form of money or points that can be redeemed for desired incentives—contingent on correct responding.

A variant of direct remediation of cognitive deficits involves patients in a hierarchical series of training subprograms, beginning with cognitive differentiation and proceeding through social perception exercises and then to verbal communication, social skills, and interpersonal problem-solving phases. Another approach adds vocational relevance to the cognitive training by having patients maintain a focus on concentration while performing quasi-job tasks such as folding, cutting, stapling, and sorting papers. Empirical evaluation of the efficacy of direct cognitive training approaches suggests that striking improvements—approaching normalization of some functions—are possible in the cognitive tasks, but the links between improvements in those molecular levels and in molar social and clinical status have not been satisfactorily documented.

Current research aims to promote clinical generalization of direct cognitive remediation through identifying and strengthening the cognitive, behavioral, and social processes that mediate learning of adaptive skills. For example, short-term verbal memory and sustained attention have been documented as rate-limiting factors in the acquisition of social and instrumental skills. Vocational outcomes have been predicted much more...
accurately by an individual's attentional capacities than by his or her symptoms of disorder; hence, current cognitive remediation efforts are directed at normalizing those deficits of attention, concentration, memory, and problem solving that appear to be the core obstacles to a person's responsiveness to rehabilitation. However, the ecological validity of laboratory-based remediation of cognitive dysfunctions has yet to be demonstrated.

Cognitive-behavior therapy of psychotic symptoms A different remediation strategy has been to ameliorate psychotic symptomatology through cognitive restructuring and learning principles. For example, delusional beliefs can be altered by collaborative, reframing methods that use an investigative style leading the patient to discover and empirically test the dysfunctional quality of the irrational beliefs.

Mr. Smith believed he was being poisoned by his father. As a result he was anxious and paranoid during home visits. Rather than confronting the patient's delusion with reality testing, Mr. Smith's therapist engaged him in an examination of how those beliefs had an adverse impact. For example, harboring the persecutory ideas prevented him from feeling close to his father and from enjoying his home visits. The therapist helped Mr. Smith to identify times when he felt safe and secure in the presence of his father, such as when they watched a football game together on TV and had some spirited conversation. The contradiction between happy times and fearful times became the opening wedge for questions to be raised about the validity of the patient's delusional beliefs.

Another example of cognitive therapy for psychotic symptoms is the use of self-instructions and self-reinforcement to counter delusions and hallucinations and to improve concentration.

The lawyer with a paranoid delusional disorder was chronically fearful that his colleagues were trying to case him from the firm. He was constantly on guard, vigilant, and tense when interacting with them. He was taught to take a more proactive stance at the firm and, instead of waiting for someone to say something, instructed himself to approach his colleagues each day, smile, and exchange some pleasantries. When those social initiatives had succeeded in disarming them, he was given practice in rewarding himself by saying, "That was a good gambit!"

A final therapeutic variant in that category is the use of cognitive-behavior modification techniques to increase adaptive behavior and reduce the frequency and preoccupation of thought disorder, delusions, and hallucinations that have proved refractory to antipsychotic medication. Contingent reinforcement, reinforcer sampling, discrimination training, fading procedures, and discrete trials learning have all been demonstrated to be effective, at least during short-term follow-up in hospital and clinic settings. Much of the emphasis is on increasing adaptive behavior that is incompatible with the symptoms and that, when frequently occurring, will displace the psychotic symptoms. For example, in the attention-focusing procedure, repeated prompting, modeling, and reinforcement of appropriate verbalizations during many conversational learning trials has enhanced acquisition of verbal skills and reduced incoherence. The high density of prompts, modeling, and reinforcement makes it almost impossible for a thought-disordered patient to make incorrect responses.

TOKENECONOMY While the systematic and planned provision of social and tangible reinforcers for patients' participation and progress is an indispensable element of social skills training, family psychoeducation, cognitive remediation, and vocational rehabilitation, contingent use of reinforcement becomes a round-the-clock necessity in token economy and social learning programs for the most seriously of the mentally disabled. If the pervasive positive and negative symptoms, instrumental role deficits, and intolerable, acting-out, and bizarre behaviors of treatment refractory patients are to be remediated, the entire therapeutic milieu and its staff cadre must be united and consistent in delivering systematic positive and negative consequences to patients' behaviors and in encouraging adaptive and prosocial behaviors from them.

The use of tokens, points, or credits as secondary or generalized reinforcers can be seen as normalizing a mental hospital environment with a program that bears similarity to the society's use of money for meeting instrumental needs. Token economies establish the rules and culture of a hospital inpatient unit or partial hospitalization program, offering coherence and consistency to the interdisciplinary team as it struggles to promote therapeutic progress in difficult patients. Those programs are challenging to establish, however, and their widespread dissemination has suffered because of those organizational prerequisites and the additional resources and rewards needed to create a truly positively reinforcing environment.

Elements The first step in designing a token economy is targeting specific behaviors that are to be increased or decreased in frequency. For example, self-care and appropriate social participation in therapeutic activities would be targets for positive reinforcement while aggressive and intrusive behaviors might result in token fines. Each behavior needs to be sufficiently described so that patients and staff can reliably recognize performance of that response. For example, showering includes gathering soap, shampoo, towel, and clean clothes; prepping the shower area; washing the body; shampooing the hair; rinsing and drying the body; and cleaning up the area after use. Without extreme specificity, patients and staff may not reliably agree on what behaviors justified token rewards.

After identification of token economy targets, contingencies need to be created that govern the consequences of those behaviors. Contingencies describe "if-then" rules connecting a target behavior with a reinforcer. Staff specify payoffs much like the contingencies in Table 50.4-6 with the size of the payoff differing across behaviors and proportional to the difficulty of changing that behavior. As the token economy progresses, specific contingencies can be adjusted depending on the frequency with which individual behaviors are performed by the patient group and the fluctuating rate of commodity purchase rates.

Frequently, behavioral contingencies are compounded by opportunity. Staff must have the opportunity to observe the patient perform the skill so that the patient can be reinforced. Hygiene activities are easily scheduled into the daily routine so that staff know when to observe patients perform the target. However, other skills like social behaviors are performed continually throughout the day. Staff may miss a learning opportunity if they do not observe the skill or behavior being exhibited.

Patients must also have the opportunity to perform the targeted skill. Patients cannot be reinforced for leisure activities with peers if they do not have access to games or other recreational activities. Similarly, if the goal in a medication management program is to increase the rate of appropriate drug self-administration, then patients need to be given independent access to their drugs.

After targets are fully defined and reinforcers are in place, rules must be developed that designate the manner in which patients receive and return tokens. Administrators of token economies need to define the place and time in which tokens can be exchanged for commodities and other reinforcers. Typically, treatment units dedicate one small room to store cigarettes, caffeinated coffee, candy, pop, personal radios, videos, and magazines. The store needs to be open at least every two to three hours during waking hours so that patients have ample opportunities throughout the day to exchange tokens for reinforcers.

The prices for commodities are listed at the token store and
A token economy has operated continuously for 24 years at the Camarillo State Hospital, cosponsored by the California Department of Mental Health and the UCLA Clinical Research Center for Schizophrenia and Psychiatric Rehabilitation. Patients are recruited from among the most impaired, treatment-refractory population at the hospital. An integrated pharmacological and behavioral program of interventions is applied. Table 50.4-7 shows the results of a cumulative empirical evaluation of the program, based on direct observation of problem behaviors during patients' baseline assessments in contrast with the frequency of the same behaviors for the month prior to discharge. A wide array of positive and negative symptoms, psychosocial deficits, and bizarre and intolerable behaviors have been successfully modified at this exemplary model of public-academic liaison. More importantly, follow-up evaluations have found that gains were maintained in the target problems in over 80 percent of cases, and half of the patients discharged from the unit still reside in the community.

For the increasing reservoir of treatment-refractory psychotic patients living in state hospitals, forensic institutions, or community residential facilities, the token economy is the psychosocial treatment of choice. To assure a high quality and ethical token economy (1) staff must be well trained in providing positive reinforcement and shaping successive approximations to adaptive behavior, (2) competent supervision by a behavioral

<table>
<thead>
<tr>
<th>TABLE 50.4-7</th>
<th>Behavioral Outcomes</th>
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<td>Behavioral Problems</td>
<td>No. of Patient Problem Behaviors Treated</td>
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<td>-----------------</td>
<td>-----------------</td>
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<tr>
<td>Self-care, grooming</td>
<td>147</td>
</tr>
<tr>
<td>Assaultive and property aggression</td>
<td>97</td>
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<tr>
<td>Social skills deficit</td>
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<tr>
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<td>48</td>
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<td>Stereotypic movements and posturing</td>
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<td>Self-injury</td>
<td>21</td>
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<td>Pessimism, demandingness</td>
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<td>Social isolation</td>
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<td>Depression</td>
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<tr>
<td>Prader-Willi syndrome</td>
<td>9</td>
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<tr>
<td>Sexual deviance</td>
<td>9</td>
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<tr>
<td>Hallucinations, self-talk</td>
<td>6</td>
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<td>Incontinence</td>
<td>5</td>
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<tr>
<td>Spitting and mucus smearing</td>
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<td>Screaming, tantrums</td>
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</tr>
<tr>
<td>Psychogenic polydipsia</td>
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</tr>
<tr>
<td>Inactivity, masturbation</td>
<td>3</td>
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<tr>
<td>Obsessive-compulsive behavior</td>
<td>2</td>
</tr>
<tr>
<td>Muism</td>
<td>2</td>
</tr>
<tr>
<td>Incoherent speech</td>
<td>2</td>
</tr>
<tr>
<td>Antisocial behavior (stealing, breaking and entering, disruption)</td>
<td>2</td>
</tr>
<tr>
<td>Entering restricted areas</td>
<td>1</td>
</tr>
<tr>
<td>Vomiting</td>
<td>1</td>
</tr>
<tr>
<td>Anxiety</td>
<td>2</td>
</tr>
<tr>
<td>Symptom self-management</td>
<td>1</td>
</tr>
<tr>
<td>Noncompliance/oppositional behavior</td>
<td>1</td>
</tr>
<tr>
<td>Total number of patient behaviors treated</td>
<td>593</td>
</tr>
<tr>
<td>Overall average percent improvement</td>
<td>79</td>
</tr>
</tbody>
</table>
psychologist is essential, (3) administration must provide extra support so that the environment is enriched with reinforcers rather than resorting to behavioral control through deprivation and response costs, (4) the token contingencies should be supplemented with approximately 30 hours per week of planned and scheduled rehabilitation activities consistent with social learning methods, and (5) maintenance and generalization of clinical improvements must be promoted through well-planned aftercare programs and gradual fading of the structure and frequency of the contingencies. As an example of the principle of fading, patients being readied for discharge can be shifted from daily receipt of tokens to a credit card level where they have free access to all the rewards and privileges of the unit noncontingently as long as they maintain a reasonable level of performance of self-care, social skills, and instrumental skills.

While a faithfully designed and implemented token economy will have predictable and salutary effects on chronic and refractory schizophrenic patients, such ideal programs are few. Administrative support is essential for a token economy to succeed. Other variables contributing to patients' benefiting from a token economy include higher intelligence quotient, female sex, and involvement of patients more actively with staff in determining the specific tasks and goals of the program. Patients who negotiate aspects of their contingencies are more likely to comply with the behavior therapy program.

**PSYCHOSOCIAL SELF-HELP PROGRAMS**

One of the fastest growing modes of rehabilitation is the psychosocial self-help movement, with Fountain House in New York City as its prototype and inspiration. Fountain House was organized in the late 1940s when patients released from state hospitals met regularly as a social club to satisfy their needs for acceptance, destigmatization, activities, and emotional support. At club-house programs, now disseminated throughout the United States, staff and patients work side-by-side in common activities, such as preparing meals, cleaning, office work, editing a newsletter, recreation, and self-governance. The basic goals of stabilizing mentally ill persons in a normalizing environment with reduced needs for mental hospitalization are achieved through peer support, participation in meaningful and gainful tasks, and active involvement in planning one's own rehabilitation program.

Central to the psychosocial self-help philosophy is the belief that psychiatric patients have a fundamental right to work and to a home, and that those basic needs, when satisfied, generate self-esteem and a positive identity necessary for community adjustment. Thus, psychosocial clubhouses have invested time and money in developing transitional employment and housing programs. In transitional employment, after a period spent in acquiring prevocational skills such as punctuality and neatness in the clubhouse, members are placed in jobs located in normal places of business, ranging from large corporations to small firms. The jobs are at the entry level, requiring minimal training or skills. The clubhouse staff guarantees that the job will be performed reliably, even if they must fill in occasionally for an absent member. The transitional jobs are opportunities for club members to work temporarily and under supervision in preparation for full-time, gainful employment. The popularity and growth of psychosocial self-help programs are reflected by reimbursement of the services by Medicaid and Medicare and State Departments of Rehabilitation, by their certification by accreditation agencies, and by the vitality of the International Association of Psychosocial Rehabilitation Services, an organization spawned by the clubhouse network.

**Validation**

Research on the self-help movement has been impeded by the barriers between academia and the clubhouses, resulting in studies that lack diagnostic rigor, random assignment of subjects, and reports of medication status. Program evaluation of psychosocial self-help programs has shown that rehospitalization of members over a two-year period was significantly less among members (35 percent) than among nonmembers (60 percent); in addition clubhouse members had significantly fewer hospitalizations over five years and 40 percent fewer days in the hospital than the control subjects. The establishment of a Rehabilitation Research and Training Center at the Thresholds Psychosocial Clubhouse in Chicago in 1990 should lead to a productive era of evaluative research on the process and outcome of the self-help approach to rehabilitation.

One of the most ambitious programs to incorporate consumer involvement in a social learning framework is the Community Lodge, developed by social psychologist George Fairweather and colleagues. Initially, patients selected for their mutual complementarity in personality and instrumental role abilities were brought together in the mental hospital in groups to learn inter-personal skills, effective decision making, group governance, and cohesion. When they demonstrated self-management as a team, they were transferred as a group to living quarters in the community, the Lodge.

Staff members provided leadership for a period of time in helping the group to learn subsistence and home management skills as well as in developing a viable, gainful business enterprise that could sustain the Lodge financially. The members—gradually assumed full responsibility for the maintenance and operation of the home and business, as the staff faded back to more intermittent supervision and support. The members brought and prepared their own food, kept financial records of income and expenditures, and consulted community-based physicians and agencies for their medical, psychiatric, and social support needs. The subsociety that developed within the Lodge held norms that tolerated deviant behaviors in private but discouraged expression of deviance in public. For example, peers in one Lodge ignored a companion's hallucinatory talking to himself while in the home but discouraged that behavior when arriving at their job site. A 40-month, controlled evaluation study of the Lodge found that members maintained significantly greater time outside the hospital and in gainful employment. Proponents of community lodges do not necessarily see them as time-limited and transitional; rather, the subsociety is meant to be a long-term and even permanent means of providing flexible social support and reinforcement for normative behavior.

**VOCATIONAL REHABILITATION**

Vocational rehabilitation has traversed three distinct eras in the pursuit of improved employment outcomes for the seriously mentally ill. The first era was institution-bound, with hospital-based work programs as the mainstay of intervention. That sheltered approach was impeded by virtue of its dead-end jobs, which offered no future and taught few marketable work skills.

The second era was ushered in by the community mental health movement of the 1960s. That movement set the necessary conditions for transitioning hospital-based vocational programs into more mainstream activities. However, its potential was never realized, and most vocational efforts took place outside the main body of the mental health treatment and rehabilitation sectors. Mainstream vocational rehabilitation programs tended to focus their efforts on the physically disabled and on less seriously mentally ill persons. That indifference became institutionalized by many public rehabilitation agencies in lean times through practices such as measuring the effectiveness.
been a significant change in the treatment of psychiatric disabilities over the years. The concept of psychosocial rehabilitation centers evolved independently and often without much input from mental health or rehabilitation professionals. That isolation still exists today, with most psychiatric treatment systems neglecting the area of vocational rehabilitation.

A renaissance in vocational rehabilitation, sparked by the emergence of the supported employment movement, may be developing in the 1990s. The federally sponsored supported employment initiative springs from the understanding that persons with psychiatric disabilities require ongoing services, such as training in the skills necessary to maintain employment, once they secure competitive employment. It de-emphasizes the importance of what has been labeled prevocational training, advocating instead a place-train approach. Patients are placed in employment settings and then offered training necessary to maintain their positions. In its fully applied form, persons are offered services indefinitely, with job coaches visiting them at their work places to help them learn and retain the technical, interpersonal, and problem solving skills they need to sustain employment.

Vocational rehabilitation services include elements, such as occupational goal setting and functional assessment, assessment of both general and specific work skills, prevocational and vocational training, work hardening, sheltered and transitional employment, training and support in job search and interviewing skills, and supported employment. All of those functions are assumed by job coaches and adjunctive personnel providing clinical case management services to seriously mentally ill persons who participate in supported employment.

For example, the job coach assesses a person’s stamina, emerging psychopathology, medication side effects, and interpersonal relations directly on the job site. In league with the other members of the community support mental health team, the job coach or case manager ensures that interventions are delivered to strengthen stamina, nip relapses in the bud, control side effects, and improve social skills. In mastering the technical aspects of a job the job coach carries out a task analysis of the requisite work and subdivides the training process into component, incremental steps. In contrast with the supported employment of the mentally retarded, in which hands-on coach-client contact is important, job coaching for the mentally ill demands more crisis intervention and liaison with psychiatrists providing medication in order to promote patients’ tenure on the job.

Assessment of work skills and stamina Every few days to two weeks, workers are evaluated by staff and other patients with regard to their abilities to initiate and sustain work tasks, social and independent living skills, and aptitude for and interest in particular work activities. They are also engaged in a goal-setting process in which they identify their future vocational aspirations. At the end of the assessment they are given clear, concise feedback about their performance, and a plan is developed for their continued progress through the continuum of vocational rehabilitation. The plan includes specific activities such as learning work-specific and social and independent living skills and time management.

Job skills training During the job skills training phase, patients are coached about appropriate work behaviors such as arriving for work on time; planning and performing work tasks according to a schedule; and getting along with superiors, subordinates, and peers. Those tasks are best accomplished in an organized format that includes group and individual interven-

sections. Individual or group social skills training, held on or off the worksites, are most beneficial. Behavioral and learning techniques are employed to teach participants the skills they need to relate effectively in the workplace. Participants identify interpersonal problems they have or situations they would like to improve, and group members use role-play and structured problem solving techniques to redress the problems.

Job finding skills Over the past decade, there has been increasing recognition that many patients lack the requisite skills to mount, sustain, and succeed at a job search. Skills training that employs carefully defined behavioral interventions designed to teach patients interview, resume-writing, and job search skills has been found to yield employment rates of 35 to 60 percent for mentally ill patients. Shortcomings of the approach, documented by research, include its limited applicability to schizophrenic and other severely impaired populations, to those on disability without a recent work history, and to older adults.

Job support and coaching Job coaching consists of three types of interventions: skill development, service coordination, and employer consultation. During the continuing phases of employment, participants are visited by a job coach, who guides the worker in the use of the work and social and independent living skills he has learned. A new skills-training module produced by the Camarillo-UCLA Research Center, "Workplace Fundamentals," is designed to teach mentally disabled persons those interpersonal and task-oriented skills that will enable them to meet the everyday challenges of typical jobs and, hence, require less case management, supervision and onsite guidance from a job coach.

Validation While still in its early stages, empirical work in vocational rehabilitation of the mentally ill has evolved to a point where important directions for future inquiry may be summarized. The dozen or so reports in the literature all have methodological and other constraints that limit their generalizability. Transitional employment programs have increased the length of continuous time that seriously mentally ill persons are able to sustain employment. Programs that employ job coaching have demonstrated some efficacy in helping these persons maintain employment and improve their instrumental role functioning. In addition placing mentally disabled individuals in actual work settings and providing the necessary supports to sustain their performance appear more efficient than lengthy periods of work adjustment, sheltered employment, or transitional employment. However, clearer models of supported employment and job coaching must be articulated and tested among diagnostically and functionally distinct groups of patients. In addition the effects of vocational rehabilitation interventions must be examined on a number of variables, including a spectrum of vocational outcomes, symptomatic status and relapse, medication compliance, service utilization, and quality of life.

To minimize stress-induced relapses that can defeat the best-intentioned forms of vocational rehabilitation, practitioners and service systems must ensure that (1) occupational goals are realistically linked to patients’ assets and deficits; (2) progress is promoted incrementally, with abundant supports and reinforcement; (3) social skills training is made available to assist the worker in developing social support inside and outside the workplace; and (4) pharmacotherapy and crisis intervention services are kept accessible.

SEX AND AIDS EDUCATION Sexual issues have been neglected in most work with seriously mentally ill persons. That
neglect has historical roots, and reflects a bias on the part of psychiatric practitioners, in that they avoid exploration of sexual issues or assume that seriously mentally ill persons do not have active sex lives. It is known that the sexual behavior of schizophrenic persons differs from that of the general population, especially male patients, whose predominant sexual activity is autoerotic, with few sexual partners. Their median number of lifetime sexual partners is below normative profiles. However, schizophrenic persons are at increased risk for human immunodeficiency virus infection, perhaps related to their infrequent use of condoms; number of anonymous sexual partners; hypersexuality during psychotic episodes; poor abilities to decline sexual overtures; and male homosexual activity, which may be more prevalent than in their nonpsychotic counterparts. Most antipsychotic medications exert significant adverse influence on sexual drive and activity. Known side effects, which undoubtedly influence compliance, include ejaculatory difficulties, erectile dysfunction, decreased libido, orgasmic dysfunction, and priapism.

Sex and acquired immunodeficiency syndrome (AIDS) education programs have been designed, with the following goals: increasing patients' knowledge and comfort about sexuality; helping patients identify and clarify their values and attitudes about sexuality; helping patients acquire decision-making skills regarding sexual activity; overcoming medication-related sexual dysfunctions; preventing deterioration of sexual functioning; improving intimacy skills; basic AIDS education; and proper condom use. To compensate for patients' attentional and cognitive difficulties, materials were kept graphic and simple. Videotaped presentations were utilized, as were behavioral techniques such as role playing and structured problem-solving methods. Although careful design of such programs compensates for the cognitive and motivational deficits of chronically mentally ill persons, data are not available to guide such future efforts.

COMMUNITY SUPPORT PROGRAMS With the signing of the Community Mental Health Centers Act by President Kennedy in 1963 the stage was set for the care of the chronically mentally ill to transition from large state hospitals to less restrictive settings. However, for more than a decade, most community mental health centers struggled with other problems. The prevailing psychotherapeutic paradigms were ill-equipped to help seriously and chronically mentally ill persons cope with life in community settings. Thus, while the locus of care had shifted, a complementary shift in treatment focus had not yet occurred, nor had new and appropriate modes of care been articulated and implemented. Beginning in the late 1970s, the community support era ushered in a new focus, which emphasized the role of helping those persons establish and maintain themselves in the community. That change in focus implied that new modes of treatment and rehabilitation were needed.

With the latter transition, assertive clinical case management emerged as a powerful community-based intervention. A parallel concern with the structure of the system typified the community support programs. Interventions were delivered in a coordinated fashion by multidisciplinary teams of clinicians who assumed long-term responsibility for the care of seriously mentally ill patients. Those clinicians then assumed responsibility for patients across service settings, as seriously mentally ill persons traversed the many service components such as patient units, outpatient programs, partial hospitals, and psychosocial rehabilitation centers. With the passage of Public Law 99-660, the Americans with Disabilities Act, states were required to plan comprehensive and continuous services for persons with serious and chronic mental illness. Through that directive many communities were able to secure the mandate and resources needed to design and implement comprehensive and continuous systems of mental health care.

HOUSING Safe and acceptable housing is a critical element in the complex array of basic and extended services required for persons with serious and disabling mental illnesses to establish and maintain themselves in the community. In fact, rehabilitative efforts are doomed to failure unless provisions are made for affordable and adequate housing. Some of the most time-honored needs subserved in past eras by psychiatric hospitals—to offer protection, social support, nutrition, security, supervision, and sanctuary for the mentally disabled—are now provided by the spectrum of community-based housing options. While most psychiatric patients identify the desire for such housing, obstacles prevent those patients from securing and maintaining satisfactory shelter.

Impairments related to the patients' illnesses, such as social and independent living skills deficits, severe psychotic and affective symptoms, and cognitive processing deficits; environmental barriers such as stigma, poverty, and discrimination; and service system inadequacies such as inattention to their training and support needs, have compounded the problem. Con sequences of that inattention include homelessness, inappropriate use of hospital and other more intensive forms of care, and increased involvement of the mentally disordered with the legal and penal systems.

Efforts to address those problems have taken many forms over the past decade. Attention has been given to examining the levels of support needed by the seriously mentally ill for them to secure and maintain housing. Initially, that took shape in the development of comprehensive arrays of transitional living arrangements, so that patients could move from more to less supervised and supportive settings. Such elements as quarter-way, halfway, and three-quarterway houses; board and care and other group living arrangements; crisis and homeless shelters; foster family settings; and supported apartment programs became popularized. The best of the efforts allowed for consumer choice, easy access, and free movement among the service elements based on patients' needs for supervision and support. However, many efforts were plagued by the tendency for clinicians and systems to attend to their own needs, leading to fixed lengths of stay in each of the housing elements, with patients moving to meet systems' needs rather than having services flexibly tailored to their own waxing and waning impairments and personal resources.

Over the past several years, partnerships between mental health and public housing agencies have become more common. What has been lacking are approaches that attend to patients' individualized desires for housing. Service providers and policymakers have not implemented systems that actively ask patients what their preferences are for housing and then teach them the skills they need to mount and succeed in a search for adequate and acceptable housing. Future efforts will seek to solicit patients' goals for shelter and basic needs, identify their personal resources and deficits in the pursuit of those aims, and help them to acquire the coping skills and competencies they require to attain their housing goals.

The ideal paradigm is supported housing, where social support, case management, crisis intervention, in-home skills training, and accessible psychiatric consultation are flexibly wrapped around the changing needs of the mentally disordered person. The National Association of State Mental Health Program Directors in 1987 approved a policy statement that endorsed the concept of supported housing:
All people with long-term mental illness should be given the option to live in decent, stable, affordable, and safe housing, in normal settings that maximize their integration into community activities and their ability to function independently. People should be given the opportunity to actively participate in the selection of their housing arrangements from among those living environments available to the general public.

The Robert Wood Johnson Foundation sponsored a five-year demonstration program in several cities that integrated housing supports with community mental health services. The empirical evaluation of that program has sounded a cautionary note against prematurely invoking the concept of supported housing without adequate research data. Normalized housing with intermittent supports from visiting case managers may not be sufficient to buffer the stressors attendant on living independently. In addition mentally disabled persons are usually inhibited from social initiation and contacts because of persisting negative symptoms of schizophrenia and other psychoses; thus, there is the potential of social isolation and anomia resulting from an overly ambitious policy of independent housing. One longitudinal study of 234 predominantly schizophrenic residents of community facilities found that a transitional approach to residences, in which there were high expectations for independence, resulted in smaller social networks, a decreased likelihood of obtaining emotional or instrumental support from one’s network, and a decreased ability to give emotional support to other members of the network in contrast to a sheltered approach to residential care.

COMBINED PSYCHOSOCIAL AND DRUG THERAPIES

There can be no doubt as to the complementary merits of pharmacotherapy and structured, practical and educationally oriented psychosocial therapies in treating and rehabilitating persons with serious mental illnesses. Psychopharmacologic interventions are becoming increasingly more refined, with indications that low-dose and targeted strategies may offer clear advantages to certain subgroups of patients over more standard strategies. It is also clear that collaborative efforts between informed patients and families and their psychiatrists offer distinct advantages, decreasing relapse and enhancing outcome. Moreover, there is evidence that combined behavioral and drug therapies offer additive benefits, reducing relapse rates by as much as half of the rate for either therapy alone. The behavioral therapies that have been shown in research to offer additive benefits over medication alone include token economy, social skills training, and behavioral family management.

In recent years investigators have sought to teach patients the skills they need to act as effective collaborators in such strategies as those involving reduced dosages or targeted dosing of antipsychotic medications. The following case vignette illustrates this point.

Bill is a 23-year-old man with a five-year history of schizophrenia. He had been resistant to taking medication because of the side effects he had experienced, including severe akathisia, tremor, and coldness. Acute exacerbations had precipitated his psychotic symptoms and improved his attention and concentration, but his family had become more compliant with prescribed regimens. He also related that some of his psychotic symptoms, particularly auditory hallucinations, persisted at a low level despite altered doses and types of medications. Bill had been hospitalized an average of three times per year for psychotic exacerbations since the onset of his illness. He communicaed his perfection that all efforts to treat him 'missed the boat' and that staff had not attended to his own goals and ambitions.

At that point the staff engaged Bill in a goal-setting process in which they identified targets of living independently without being hospitalized, taking little or no medication, and eventually getting a job. The individual social worker accepted those goals as laudable and set out to establish clear and measurable landmarks to gauge his success in the pursuit of these aims. With that accomplishment, they worked with Bill to identify the personal resources he possessed and the obstacles he faced in attaining his goals. Bill said that the most frustrating problem was his lack of understanding about his illness and its treatment, as that led to frequent relapses and consequent life disruption.

Bill’s psychiatrist and social worker next enrolled him in a class using the UCLA Medication and Symptom Management Modules, which were designed to increase his understanding of his illness and the medications used to treat it. He gained a working knowledge of the way in which medications caused the side effects he found so intolerable, and he learned communication skills that would help him to effectively negotiate and dosage of his medication. He then worked with his psychiatrist and chose a low-dose alternative to treatment that involved taking injections of long-acting antipsychotics every four weeks. Finally, he was taught ways in which he could manage the persisting auditory hallucinations he experienced. Bill felt a sense of mastery over his illness, and he remained compliant with medications for the next year. He experienced two minor relapses, but sought help from treatment personnel early in the course of the relapses and did not require rehospitalization.

The key features of the foregoing example were that Bill’s goals and personal desires were solicited, respected, and incorporated into the treatment plan; his resistance to medication was confronted in a straightforward, nonjudgmental, problem-solving manner; and he was taught skills he needed to become an effective ally in his own treatment and rehabilitation. Treatment occurred in a multidisciplinary team context, and Bill was seen continuously by the same group of treatment providers.

The relationship between antipsychotic drugs and anticholinergic drug dose levels and attentional and memory measures have substantial implications for psychiatric rehabilitation. Low to moderate dose levels of antipsychotic medication significantly enhance vigilance while not impairing recall memory. Therefore, low to moderate dose levels of antipsychotic medication may enhance the learning of social and vocational skills. The new generation of atypical antipsychotics may offer considerable advantages over conventional antipsychotics in facilitating rehabilitation. For example, clozapine (Clozaril) and risperidone (Risperdal) are superior to traditional antipsychotics in ameliorating negative symptoms, such as social withdrawal, and anhedonia; in addition, risperidone appears to improve information processing and attentional capacities in the central nervous system.

Psychopharmacological research also suggests that high doses of antipsychotic medication, as well as most anticholinergic drugs, actually diminish memory. Hence, patients on high doses of antipsychotics or who receive anticholinergic medication for side effects may be less able to learn instrumental role skills.

Findings to date indicate that comprehensive treatment programs for persons with serious mental disorders should combine drug and behavioral, learning-based interventions. The following principles, distilled from the results of many studies, summarize current clinical wisdom regarding drug-psychosocial treatment interactions:

1. Psychosocial treatment is most helpful for patients who are in reasonably good states of partial or full remission from florid symptoms and who have reached stable levels of maintenance medication. Psychosocial treatment during acute flares of symptoms should be aimed at calming the patient, reducing levels of social and physical stimulation, and assisting the patient to integrate and understand the symptoms as part of an illness process.

2. The most effective psychosocial treatment—whether provided by individual therapy, group or family therapy, day hospital, or inpatient milieu therapy—contains elements of practicality, concrete problem solving for everyday challenges, low-key socialization and recreation, engagement of attainable tasks, and specific goal orientation.

3. A continuing positive relationship is central in the overall strategy for treating the schizophrenic patient. No matter how
much drug or psychosocial treatment contributes. That relationship may be with the prescribing psychiatrist or with a para-
professional case manager.

4. The critical time to offer psychosocial treatment is during the aftercare period, when the patient is able to absorb rehabilita-
tion and needs assistance in surmounting the problems and stresses of readjusting to family and community.

5. Psychosocial treatment should be long-term: benefits rarely become apparent before 12 months and are even greater after two years. It is likely that indefinite, if not lifelong, psychosocial support, guidance, and training are optimal for most chronic schizophrenic patients. As antipsychotic drugs are most effective in maintaining symptomatic improvements when continued indefinitely, it is not surprising that psychosocial rehabilitation efforts are similarly optimized by continuity.

6. Psychosocial treatment should focus on stressors in the environment and deficits in personal characteristics that seem to play specific roles in relapse and community maladjustment. Schizophrenic relapse is common even when drug compliance is firmly established. Nor is there any evidence that a patient’s level of manifest psychopathology at hospitalization or discharge predicts subsequent relapse. The best explanation, based on converging lines of evidence from empirical studies, is that the patient’s personal assets and deficits, the social environment, and the type of psychosocial therapy are the most powerful influences on relapse, even in the face of reliably administered maintenance medication.

FUTURE DIRECTIONS

With improved and more reliable methods of diagnosis, symptom assessment, and functional assessment, the population and needs of patients requiring psychiatric rehabilitation are becoming better defined. Because of its growing technology and its conceptual and empirical base, psychiatric rehabilitation has attracted an interdisciplinary group of practitioners and investigators whose work has contributed to its evolving scope and stature as a subspecialty of the mental health and rehabilitation professions. The challenges to community-based care for the seriously and chronically mentally ill have been met by new initiatives at the clinical and policymaking levels, for example, social skills training, case management models for coordinating continuing care, supported housing and employment services, greater advocacy and involvement by families, and the Americans with Disabilities Act.

Despite advances in assessment and treatment, the implementation of psychiatric rehabilitation in the public sector has been frustrated by inadequate funding and resources, lack of trained personnel, limited dissemination of the new technology, insufficient affordable housing, unattractiveness of voluntary treatment, and a lack of administrative and financial integration of state and local community mental health services. The consequences of these system-wide problems have meant that too few of the mentally disabled are actually receiving state-of-the-art services, and too many thousands are living on the streets of our cities and in jails and prisons.

INNOVATIONS FOR THE 21ST CENTURY How might the future of psychiatric rehabilitation be charted? Will the field continue to flourish or merely become a historical footnote along with deinstitutionalization and community mental health centers? Some ideas for clinicians and researchers emphasizing domains of rehabilitative activity have begun to take root in the 1990s.

Illness self-management techniques Skills training modules, such as those in the UCLA Social and Independent Living Skills series, will teach patients to acquire the abilities to monitor their psychopathologic and functional progress, to identify stress through changes in skin conductance and prodromal symptoms, and to seek early and flexible levels of intervention from professionals and caregivers. With patients also more knowledgeable about the benefits and side effects of their medication, a true partnership in managing pharmacotherapy will yield improved adherence and reduced relapses.

Cognitive remediation As researchers learn more about the cognitive substrates and mediators of psychopathology and social dysfunction, techniques will be developed from applied behavior analysis, amplified by a new generation of atypical antipsychotic drugs that can be effective in remediating and overcoming the attentional, memory, and information processing deficits. The brain is a plastic organ with many compensatory mechanisms that can be activated by structured and systematic environmental intervention; thus, the biopsychosocial nature of serious mental disorders will illuminate the bidirectional pathways among brain-behavior-environmental interactions.

Assessment technology Functional and symptom assessment will become better integrated, with the use of mathematical models derived from large-scale research studies showing how personal, social, and psychopathological variables interrelate. In one study of over 400 mentally ill persons, long-term employment outcomes were shown to be determined by a confluence of psychiatric symptoms, social competence, work capacity, and pension disincentives. When practitioners adopt quantifiable and repeated measurements of symptoms and functioning in their patients, interventions will be selected more judiciously and their effects monitored more precisely. Improving the quality of care will ultimately depend on reliable and clinically relevant assessment instruments that are used to give informational feedback and guide decision making.

Integration of social learning with assertive community treatment Proponents of intensive forms of outreach case management and clinical intervention will adopt behavior therapy techniques to promote greater gains in psychosocial functioning and independence of patients. Life adjustment teams will employ structured skills training techniques—which themselves will have been infused with new principles from research on cognitive science—while engaging patients in naturalistic settings in the community. Demonstration studies of that type of integrated mental health care have already reported accelerations and broadening in the symptomatic and social recovery of persons with serious mental disorders.

Normalization of the lives of the long-term mentally ill will improve with a wider array of supported employment, housing options, and access to educational, social, and recreational opportunities that promote community adaptation. With the anticipated contraction in the work force because of lowered birth rates and a continuing growth of the economy, as well as the impact of the Americans with Disabilities Act, jobs will become more accessible to disabled persons. The type and frequency of follow-along psychiatric services will be tailored to the individual’s symptom patterns, work tolerance, stress vulnerability, and social disabilities. Volunteers, students, and retired persons will take on a greater role in providing social support, friendship, and community linkages for the mentally ill. Telephone answering machines, beepers, and informatics made possible...
Family and patient participation With the growing size and political impact of the Alliance for the Mentally Ill and the consumer self-help movement, patients and family members will become more effective as advocates for needed services and partners in treatment planning and intervention.

Financial integration of mental health services New initiatives will flow from the various states and also demonstration projects sponsored by the federal government to improve the cost-effectiveness of mental health services. With pressures to reform the nation’s health delivery systems and the advocacy of the Alliance for the Mentally Ill, efficient and efficacious psychiatric services will be reimbursed at levels commensurate with other medical and surgical services. Incentives will be offered to encourage community-based continuity of care through such mechanisms as capitation, health maintenance organizations, regional consortia of service providers, performance contracts, clinical information systems, and patient registries.

SUGGESTED CROSS-REFERENCES

Partial hospitalization is covered in Section 46.4. Community psychiatry is the focus of Section 50.1, and the role of the psychiatric hospital in the treatment of mental illness is the subject of Section 50.3. The individual psychotherapy of schizophrenia is discussed in Section 14.10, and the psychosocial treatment of schizophrenia is discussed in Section 14.9.

REFERENCES


