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# PSYCHIATRIC REHABILITATION

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**The growing recognition** that long-term disability is experienced by a large proportion of persons with serious and persistent mental disorders has spurred the development of the field of psychiatric rehabilitation. Even with the best evidence-based treatment, individuals with psychotic disorders have sub-optimal outcomes, with symptoms persisting despite appropriate treatment (Lieberman et al. 2005). Beyond persisting symptoms, social maladjustment in family and vocational roles interferes with the quality of life of an exceedingly high number of those with psychotic disorders (Marshall et al. 2005).

Stigma, inadequate or inaccessible treatment services, unemployment, poor-quality housing, and lack of social and leisure opportunities all complicate the social disablement that arises from severe mental disorders. The unmet needs of the mentally disabled have pointed the way toward longer-term and more comprehensive rehabilitation services for individuals disabled by their mental disorders. Integrated pharmacological and psychosocial treatments, flexibly adapted to patients' changing needs and interests, have been shown to yield better symptom control and higher lev-

els of community functioning. Treatments need to be comprehensive, consistent, coordinated, and competency-based to achieve optimal outcomes (Adair et al. 2005).

The spectrum of interventions for mental disorders, from prevention to treatment to rehabilitation, is depicted in Figure 22-1. Although there are no conceptual or operational differences between *treatment* and *rehabilitation*, the two terms have inadvertently been separated because researchers and practitioners have focused their work on relatively brief versus long-term services, on singular versus comprehensive services, or on pharmacological versus psychosocial services. The ultimate aims of a holistic treatment-rehabilitation approach for persons with disabling mental disorders are to restore them to the best possible level of functioning:

- With as full a participation as is realistically possible in the social, work, family, recreational, friendship, and spiritual domains
- With as much collaboration and involvement of the patient with the clinician in goal setting and treatment planning as possible

- With use of “treatments that work” from both psychosocial and pharmacological levels of care
- With as little reliance and dependence on professional services and systems as feasible

## INTEGRATION OF TREATMENT WITH REHABILITATION: TWO SIDES OF THE SAME COIN

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Drug–psychosocial interactions exemplify the necessity of integrating what has been conventionally viewed as treatment with conventional views of rehabilitation. There is increasing evidence that optimal pharmacotherapy and psychosocial services—when functionally interconnected and linked to the phase of a person’s mental disorder—can yield better outcomes than has been the case heretofore. When medication and behavioral interventions are joined together in a comprehensive, coordinated, continuous, and collaborative fashion, symptomatic and functional improvement ensue in a larger proportion of patients than when the two types of services are delivered separately (Falloon and Fadden 1993). Systematically linked and organized drug and psychosocial therapies for schizophrenia have been shown to facilitate symptomatic and social recovery from schizophrenia, belying the traditionally held pessimistic prognosis for this disorder (Lieberman and Kopelowicz 2002).

What strategies have been shown to improve clinical outcomes by bringing together medication and psychosocial therapies? Prototypes can be identified according to the phase of a person’s disorder:

- *Motivational enhancement* for persons reluctant to even initiate treatment
- *Involvement of family members* in treatment
- *Empowerment of patients* in ownership of their treatment by giving them choices
- *Improved reliability of medication use* through teaching medication self-management
- *Reduction of relapses* by involving patients and their families in *relapse prevention plans*
- *Titration of medication and psychosocial treatments* to the phase of a person’s disorder

### Using Motivational Enhancement

When individuals are in denial of their illness, refuse medications, or are reluctant to seek professional assis-

tance, motivational enhancement approaches can enable treatment to commence. This strategy involves joining with the patient in his or her resisting, validating it, and employing Socratic questioning to enable the patient to identify his or her personal goals. When reluctant patients are able to articulate how they would like their lives to be different from their current unsatisfactory state, it is possible to gain their involvement in a self-directed “experiment” in which they evaluate whether any improvements that occur with a time-limited use of medication bring them some benefits related to their personally relevant goals. Even if it takes several consensually agreed upon “experiments,” when benefits ensue in the person’s everyday life that are valued by the patient, engagement and adherence to treatment are often the consequence.

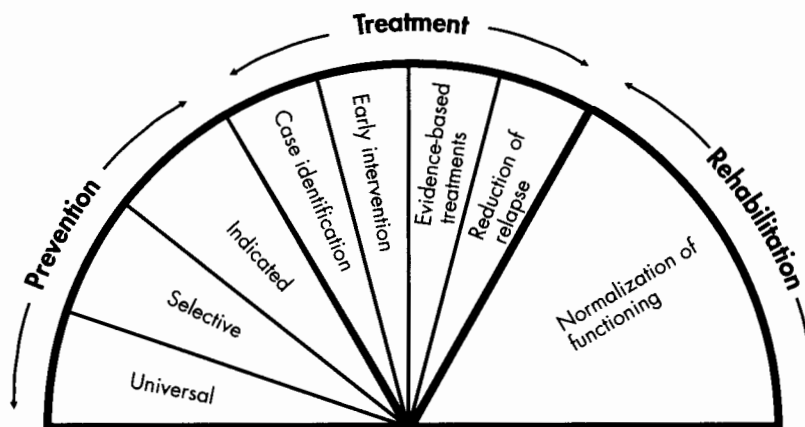
### Involving Family Members in Treatment

Another technique found to be effective in engaging people in the treatment process is to involve their family members as early as possible. For instance, Kopelowicz et al. (2003) incorporated the participation of families to facilitate learning of illness management skills by Latinos with schizophrenia. In addition to directly training patients on the requisite skills, family members were taught how to provide opportunities for the patient to implement illness management behaviors, encourage the patient to actually implement the behaviors, and reward the patient with positive feedback when he or she did so.

The effects of this intervention were evaluated in a rigorous experimental design with a total of 86 Spanish-speaking families. The results indicated that the participants learned the skills, transferred them to their own living environments, and maintained use of the skills for at least 6 months after training, the duration of the follow-up in this study. Moreover, participants in skills training had lower rates of positive and negative symptoms at the end of training and at the 6-month follow-up and fewer hospitalizations during the 9 months of the study and 1 year later than the individuals receiving customary care.

### Empowering Patients Through a Partnership in Treatment Decisions

It has been known for some time in the nonpsychiatric medical literature that when patients are invited to choose from among two or more equally effective treatments, the outcomes are significantly better than when they receive the very same treatment prescribed by the



**FIGURE 22–1.** The spectrum of interventions for mental disorders.

physician. An example of this strategy can be found in a program dedicated to serving mentally disabled patients who are high utilizers of hospital care. In The Village, an integrated and comprehensive service agency, patients treated with psychotropic medications are encouraged to make their own decisions about treatment after receiving information about the benefits and risks. In addition to a full team of mental health professionals and paraprofessionals, each individual works with a Village psychiatrist who uses a collaborative approach to teach people how to manage psychiatric symptoms as well as effectively use psychotropic medications. This approach puts the patients in control of their illnesses, makes them partners in their treatment, and lets them pursue their work, living, education, and social goals. A randomized, controlled study comparing participants in The Village with clients receiving treatment as usual in the community found that after 1 year the former were significantly less likely to have been hospitalized and more likely to continue in treatment (Chandler et al. 1996).

### Teaching Patients Reliable and Self-Directed Use of Medication

To teach patients the skills needed to effectively manage their medications, researchers at University of California, Los Angeles (UCLA), have developed the Medication Management module (Lieberman et al. 1993). Using highly structured and thoroughly specified instructional techniques so that even paraprofessionals can use them with a minimum of training and consultation, this psychoeducational module is a self-contained package composed of a prescriptive clinician’s manual or guide, a videocassette for 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, social and videotape feedback, problem solving, and practice in the natural environment through in vivo exercises and homework assignments (described in detail later in the chapter).

Patients proceed through five skill areas: 1) understanding the benefits of antipsychotic medication, 2) acquiring the skills of medication self-administration, 3) coping with the side effects of medication, 4) negotiating medication issues with health care providers, and 5) understanding the advantages of long-acting depot injectable medication. In a controlled study of 28 mental health facilities, half of which implemented the module, significantly higher rates of medication compliance were attained by patients who were taught how to maximize the benefits and minimize the side effects of medication and to use their medication in responsible and reliable ways (Eckman et al. 1990).

### Using Self-Help Programs

Until recently, self-help groups and programs have been a peripheral development to mental health systems of care. However, despite the ignorance of their importance or even of their existence by mental health professionals, these groups have brought valuable peer support, educational programs and information on mental illness and its treatment, social activities, community involvement, political advocacy, hope, and empowerment to many individuals with mental disabilities. The values that guide consumer self-help are peer-based support and assistance; advocacy for improved services and civil rights for

the mentally ill; activities and goals organized by peers with minimal reliance on professionals; voluntary membership; egalitarian, nonbureaucratic, and informal structures, interactions, and activities; and accessibility and acceptance of each person regardless of symptoms, deviant behaviors, or level of functioning.

Since 1980, there has been an explosion of organizations composed of family members and patients that have taken a prominent place in the public eye and have become the most vocal and effective voice advocating for improved services and research for mental disorders. These organizations include the National Alliance for the Mentally Ill, the Bipolar and Depression Support Alliance, the Anxiety Association of America, and many others. These advocacy, education, and peer support associations have become active and full partners with professional organizations within the mental health disciplines. They have begun to participate in forging priorities and improving quality of mental health services. As the self-help movement comes out of the shadows, it will become more visible to mental health professionals, receive greater respect and resources, and take new forms, designs, and functions.

An example of how self-help organizations evolve over time is Project Return, a regional network of self-help clubs that meets in various community locales throughout Southern California. Begun in 1979 by the Mental Health Association of Los Angeles with the purpose of integrating recently discharged mentally disabled patients into normalizing community activities, Project Return originally planned to use the mechanism of self-help social clubs as places where outpatients could meet weekly to organize social and recreational activities. Each club was assigned a facilitator, usually a volunteer clinician or a citizen nonprofessional who had some experience working in mental health settings. Facilitators followed a manual that outlined the policies and procedures of each club meeting: 1) creating a structure, 2) establishing consistency with an agenda and ensuring that the club met at the same time and place each week, 3) developing leadership among the members, 4) planning activities and problem solving, and 5) providing a friendly and supportive milieu. The policies and procedures incorporated a practical sequence for operating the club meetings; electing officers; defining responsibilities for officers and members; setting goals; identifying and obtaining resources for refreshments, parties, outings, and activities; implementing the activities; and recruiting new members. In effect, the systematic and organized process of the clubs gave members the kind of structure that could compensate for their cognitive and symptom impairments.

Over a period of 25 years, Project Return became

fully run and managed by its members, allowing facilitators to be faded out of their consultative role and thus no longer involved. A new mission statement was developed that maintained its social, peer support, and recreational functions but added political advocacy, destigmatization, and penetration of public mental health facilities with the recovery philosophy; education of patients and professionals about the needs and aspirations of the mentally ill; and contracts from state and local agencies for support of vocational and activist goals. From one club with 10 members, Project Return has expanded to more than 75 clubs in three counties with more than 2,500 members (Levin 1997).

### Reducing Relapse by Involving Patients and Families in Designing Relapse Prevention Plans

Despite the best efforts of pharmacotherapy, relapse remains unacceptably high in most major psychiatric disorders. This is especially the case with schizophrenia, for which relapse rates for individuals regularly and reliably taking oral or depot antipsychotic medication average 30%–50% in a 2-year period (Hogarty et al. 1986). When patients and their relatives have the opportunity to learn to identify the warning signs of relapse, monitor them, and prepare an emergency plan for when prodromal symptoms arise, relapse rates are cut in half (Herz et al. 2000; Schaub et al. 1998).

### Titration Doses of Drug and Psychosocial Therapies to Fit Phase of Disorder

The American Psychiatric Association's *Practice Guideline for the Treatment of Patients With Schizophrenia* (Lehman et al. 2004a) delineates appropriate evidence-based treatments for persons with schizophrenia based on the phase or stage of the disorder: acute, stabilizing, stable, recovery, and refractory. Improved outcomes can be expected when both drug and psychosocial treatments are coordinated for titration that is linked to phase of disorder. For example, during the stable phase, patients with schizophrenia can be maintained on lower dosages of antipsychotic medication than earlier in the course of their illness. Psychosocial services can be intensified during this phase because patients' cognitive capacities have improved and their ability to absorb and use new information is enhanced. Some of the most prominent evidence-based psychosocial programs are best delivered in the stable phase even though they are intensive and somewhat stressful.

These include social skills training, behavioral family management, and supported employment, each of which is described in the next section of this chapter.

For persons with refractory schizophrenia for whom persisting psychotic symptoms have eluded the skillful use of pharmacotherapy, titration of medication dosage and implementation of social learning therapies result in significant improvements in symptoms, side effects, and social functioning. This was documented in a study of patients with treatment-refractory illness who had had long stays in a state hospital. Haloperidol dosages were systematically titrated downward while symptoms and side effects were systematically monitored. Somewhat paradoxically, clinical improvements were found when haloperidol dosages were decreased from an average of 52 mg/day to an average of 19 mg/day. Once the drug titration was completed, patients were involved in highly structured, individualized social learning treatments that significantly improved their social, self-control, and self-care functioning (Lieberman et al. 1994).

Mr. B was a 23-year-old man with a 5-year history of schizophrenia who had more than a dozen hospitalizations since the onset of his illness. He had been resistant to taking medication due to the side effects he had experienced, including severe akathisia, tremors, and muscle stiffness. He acknowledged that these medications had diminished his psychotic symptoms and improved his attention and concentration, but he resisted efforts to 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 dosages and types of medications.

At this point, staff engaged Mr. B in a goal-setting process in which he identified his own personal goals: living on his own without being hospitalized, taking little or no medication, and getting a job. His psychiatrist and social worker accepted these goals as laudable and set out to establish clear and measurable landmarks to gauge his success in the pursuit of these aims. With this accomplished, they worked with Mr. B to identify the personal resources he possessed and the obstacles he faced in attaining his goals. Mr. B said that the most frustrating problem was his lack of understanding about his illness and its treatment because this led to frequent relapses and concomitant life disruption.

Mr. B's psychiatrist and social worker next enrolled him in a structured educational program designed to increase his understanding of his illness and the medications used to treat it and to teach communications skills for negotiating his medication regimen with his psychiatrist. He learned to develop a relapse prevention plan and methods for coping with persistent symptoms. He gained a working knowledge of how he could minimize the side effects he found so intolerable and used his new communication skills to contribute to decisions regarding the type and dosage of his medication. After agreeing to

a trial of a second-generation antipsychotic, he noticed less discomfort from extrapyramidal side effects. He used coping methods—such as humming and reducing social stimulation—to manage the persisting low-level auditory hallucinations he experienced. This led Mr. B to feel a sense of mastery over his illness, and he adhered to his medication regimen. During the next year, he experienced two minor relapses but sought help from clinicians early on and did not require rehospitalization.

The key features of the foregoing example were that Mr. B's goals and personal desires were solicited, respected, and incorporated into the treatment plan; his resistance to medication was acknowledged in a straightforward, nonjudgmental, problem-solving manner; and he was taught skills he needed to become an effective collaborator in his own treatment and rehabilitation.

## PRINCIPLES OF PSYCHIATRIC REHABILITATION

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The practice of psychiatric rehabilitation joins three major sets of therapeutic services that protect against stress-induced vulnerability to relapse and disability: 1) pharmacotherapy tailored to the type and severity of psychopathology at dosages that do not produce sedation or adverse effects that interfere with positive engagement in rehabilitation, 2) development of skills so the patient can meet the challenge of stressors and life situations that demand adaptation and independence, and 3) a range of supportive social services, including transitional or supported housing, education, and employment; financial entitlements; multidisciplinary treatment teams; and case management. Psychiatric rehabilitation assumes that disabled persons need competently delivered maintenance medication, training in social and independent living skills, and environmental resources and supports. With high-quality evidence-based treatments that are provided in the context of solid therapeutic relationships infused with realistic optimism, collaborative engagement, and empowerment, many patients may be able to fulfill the role demands of community life.

## EVIDENCE-BASED REHABILITATION SERVICES

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A number of psychosocial treatments have demonstrated effectiveness, including social skills training,

family interventions, supported employment, assertive community treatment, cognitive-behavioral psychotherapy, and integrated dual-diagnosis services. At the core of each intervention is training individuals to perform the behavioral skills that lead to improved functioning. As necessary as it is, however, this training is insufficient to guarantee that the person will achieve his or her goals of improved functioning. The interpersonal environment must provide opportunities to perform the skills and must consistently deliver well-timed rewards. Thus, rehabilitation plans include services to train the individual and increase environmental support.

## Skills Training

Training closes the gap between the individual's current skills and those needed for improved functioning. Although its methods are straightforward (i.e., describe what will be trained, demonstrate it, practice it), the content of training is far from straightforward. Developing the curricula to teach skills such as managing one's money, maintaining employment, coping with psychotic symptoms, and participating in basic conversations is neither quick nor easy. Moreover, the instructional techniques must compensate for individuals' cognitive dysfunctions that might interfere with learning.

Lieberman et al. (1993) addressed this difficulty by producing modules that teach community living skills with thoroughly specified curricula and highly structured methodology. Eight modules have been produced: Medication Self-Management, Symptom Self-Management, Substance Abuse Management, Recreation for Leisure, Basic Conversation, Workplace Fundamentals, Community Reentry, and Friendship and Intimacy. All of them, as well as those under development, use the same methodology to train each skill in each module. Only the content varies from module to module, and the repetition of the methodology provides a predictable teaching and learning environment that helps trainers conduct the modules and individuals learn the skills.

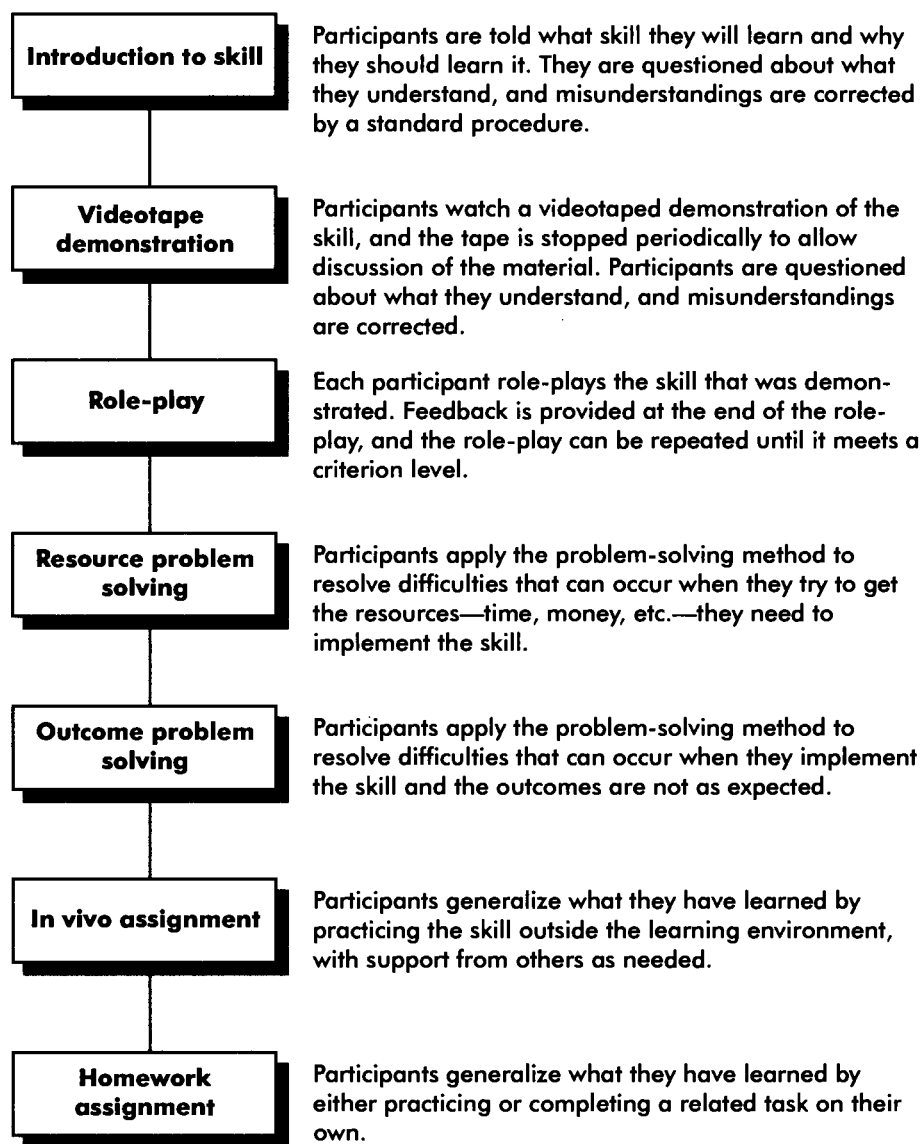
For example, the Friendship and Intimacy module focuses on the following skills: establishing a friendship; obtaining information about safe sex; identifying the benefits and risks of having sex; sharing concerns, consequences, and cautions about sexuality; sexual decision making; learning appropriate sexual behavior; lovemaking; identifying "go" and "no go" sex signals; and sexual problem solving. Each skill is defined in terms of the specific behaviors required for successful

performance. For example, establishing a friendship requires understanding of the rules for social relationships, initiating and ending brief and friendly conversations, and solving relationship problems. These behaviors are the targets of training.

The training methodology consists of seven learning activities detailed in Figure 22-2. The introduction sets the stage for the learning; it tells the learners the "payoff" they can expect from their investment of time and energy. The demonstration videotape provides a clear presentation of the skills that can be easily and consistently presented across diverse staff and settings. The videotape stops periodically and asks questions to assess viewers' comprehension, which is essential for ensuring that the training is achieving its instructional objectives. The role-play practice is similarly critical because learning is not just comprehension; it is ultimately the enactment of a skill. Furthermore, the more often participants practice the skill, the more polished their performances will be when the actual opportunities arise.

The problem-solving activities are the first steps in helping participants transfer their skills to their living environments. Two types of problems are considered: how to obtain the resources required to perform a skill and how to overcome the obstacle of an environment that does not respond as it should. The final two activities, in vivo and homework assignments, extend training into the real world. Trainees complete the in vivo task accompanied by the trainer and complete the homework assignment on their own.

Each module is packaged with a Trainer's Manual, a Demonstration Videotape, and a Participant's Workbook. The manual specifies exactly what the trainer is to say and do to teach all of the module's skills, the videotape demonstrates the skills, and the workbook provides written material, forms, and exercises to help the individual learn the skills. A module can be conducted by one trainer with one to eight participants. Of course, the teaching must be modified to fit and compensate for the large variations in people's functioning, symptoms, and capabilities to benefit from training. The modules' repetitive "tight" structure provides a completely reproducible starting point for these modifications. Experienced trainers can experiment with a variety of alterations, and inexperienced trainers can return to the structure should their modifications prove ineffective. The repetitive structure compensates for most symptomatic and cognitive limitations (Eckman et al. 1992) and forms a constant background of psychosocial treatment against which the effects of other treatments (e.g., medications) can be determined.



**FIGURE 22–2.** Seven learning activities.

### ***Empirical Evaluation of Skills Training***

Over the past few years, a number of reviews have critically evaluated the evidence of the effects of skills training on individuals with serious mental disorders (Bellack et al. 2004; Heinssen et al. 2000; Pilling et al. 2002b). Their conclusions answer two key questions: “Do individuals learn and retain the skills?” and if so, “Do individuals transfer their learning and perform the skills in their natural environments?” In terms of the former, the reviews cite more than two dozen studies that document the significant and substantial improvements in participants’ knowledge and behaviors as the result of training. Furthermore, participants retain their

improvements for up to 2 years, the maximum duration measured. These studies have been conducted

- In diverse treatment settings—inpatient, outpatient, partial/day hospitals, and residential care of all types
- By diverse practitioners—nursing staff, recreational therapists, mental health counselors, residential managers, and paraprofessional staff
- On a broad range of skills—job retention, preparation for discharge from inpatient treatment, illness management, smoking cessation, HIV risk reduction, and social assertiveness and relationship skills

The results are less encouraging for transferring skills to participants' environments. There is, of course, a transfer gradient—the more alike the training and living environments, the more likely the behaviors will be used in everyday life. However, if the gradient is steep, transfer from the clinic to the community falls off with even small differences between settings. Yet there is evidence that incorporating generalization techniques into the skills training enterprise—that is, creating opportunities in the living environment to use the skills and receive the appropriate rewards—increases the likelihood of skill transfer to everyday life settings.

Because the individual's living environment is the final common pathway for the utilization of his or her functional skills, a number of interventions have been developed to help people adapt their functional behaviors to the available opportunities and/or increase environmental support. One technique is to use the most realistic situational elements during role plays or behavioral rehearsals of the training process. Another important technique is to increase the family's involvement in the training, help them understand the rationale for training, and show them how to provide specific and informed support and reinforcement for the patient's efforts to implement the skills learned into his or her real life. A few methods of enhancing generalization have focused on improving residential care support or helping the individual adapt his or her skills to the environment with the aid of a case manager or other support person who "runs interference" for the patient as the latter attempts to reach his or her goals using the skills that have been learned (Glynn et al. 2002).

### ***Nonfamilial Supporters***

Two other support procedures have been developed and evaluated, both explicitly designed to help participants transfer newly learned skills from training to their living environments. One, called In Vivo Amplified Skills Training, involves specialized case managers who routinely and frequently conduct additional training sessions in participants' environments. The sessions help participants adapt their behaviors to their environments and practice that adaptation. Evaluations of this approach have reported that participants with the extra support achieved higher levels of interpersonal problem-solving skills, significantly greater social adjustment, and better quality of life over a 2-year period than participants with the skills training alone (Lieberman et al. 2002).

The second procedure involves indigenous supporters—residential care staff and peers—who similarly help participants in skills training adapt their

newly learned behaviors to their living environments. Supporters are selected by participants based on the criteria of cooperativeness, accessibility, and familiarity with the specifics of participants' environments. Support consists of structured meetings between a participant and his or her supporter to review the participant's use of the newly learned behaviors, explore the causes of a less-than-satisfactory use, and generate a method to improve that use. No constraints are placed on the frequency or duration of a pair's meetings. An evaluation of this procedure demonstrated that participants who received both the skills training and the added support improved their interpersonal and community functioning during training and continued to improve during the 18 months after training. In contrast, those without support lost some of their improvements during the follow-up (Tauber et al. 2000).

### **Family Interventions**

Family interventions—variously labeled *family psychoeducation*, *behavioral family management/therapy*, *family-aided assertive community treatment*, and *multiple-family group therapy*—are designed to actively engage families in the rehabilitation process. All share several components, including education about the nature of serious mental illness, assistance with using available community resources, stress management, and teaching on better methods of communicating and problem solving (Dixon et al. 2000). Evaluations of these interventions have reported that adding them to a regimen of medication and customary case management produces substantially better outcomes than the latter two alone (Pilling et al. 2002a; Pitschel-Walz et al. 2001).

The family psychoeducation approach with the best empirical support is multiple-family group therapy (McFarlane 2002), which consists of three components: 1) engagement or "joining" sessions, 2) a Survival Skills workshop, and 3) longer-term multiple-family group sessions. To engage patients and family members in the treatment enterprise, three initial "joining" sessions are conducted with each of the families separately. These sessions are also used to assess the special needs, strengths, and problems of each family unit. They take place while the patient is separately undergoing treatment of acute psychotic symptoms, followed by orientation to the purposes of the multiple-family group therapy in which he or she will subsequently participate.

The three joining sessions offer each family an individualized approach designed to facilitate the process



of engaging in treatment. The sessions are designed to familiarize families with the therapists who will be conducting the ongoing sessions and to educate families about the need for ongoing treatment. The sessions also help families identify and overcome the obstacles to pursuing outpatient treatment. In most applications of psychoeducational family therapy, patients are not included in the initial sessions because their level of symptomatic and cognitive impairments would interfere with the engagement of their families and limit any learning that could take place.

The Survival Skills workshop is a 6-hour educational workshop held on a single day with all families that will be involved in the continuing multiple-family group therapy. The workshop is primarily didactic, with open discussion of the information provided by lecture and videotape about the etiology, biology, genetics, symptoms, and treatment of serious mental illness.

After the workshop, a group of five to seven families meets twice monthly for at least 9 months and then continues monthly for 6 months or more. Depending on the needs and progress of each family and patient unit, some families can participate in family therapy for up to 2 years. All sessions are co-led by the clinicians who conducted the joining sessions and the Survival Skills workshop. Each group session is structured in the following manner: a brief caring and sharing period followed by group discussion that includes questions and answers related to each family unit's concerns and problems. Therapists encourage the families to share their personal experiences, describe their coping strategies for dealing with family and patient problems, and provide group support for one another. The principal technique used in the ongoing family sessions is teaching coping and problem-solving skills, with families serving as the role models for one another as they describe their own experiences using these skills in their home environments. Each multiple-family group session ends with reviews of the gains made by family members that week.

## Cognitive-Behavioral Therapy

A variety of therapeutic strategies aimed at improving the psychotic symptoms and social functioning of patients is collectively referred to as cognitive-behavioral therapy (CBT). CBT includes techniques aimed at enhancing coping skills, raising self-esteem, and teaching patients how to modify their misinterpretation and misperception of their psychotic experiences. The pro-

typical CBT approach is based on the techniques developed by Beck for treatment of depressive and anxiety disorders and adapted to patients with schizophrenia spectrum disorders for amelioration of psychotic symptoms that are refractory to antipsychotic medications alone. This approach is embedded in a collaborative empiricism and a solid therapeutic working alliance. The therapist's efforts are aimed at altering the patient's understanding and interpretation of his or her delusional beliefs and hallucinatory experiences through appeals to the patient's rational and problem-solving capacities. Patients are encouraged to consider alternative explanations for their symptoms and, in that light, think through and challenge their psychotic explanations in terms of their reasonableness. Patients are helped to identify their personal goals in life and to consider how their explanations and interpretations of symptoms may interfere with their obtaining their personal goals in life. Reframing methods are also used with an investigative style that leads the patient to question and test the dysfunctional and self-destructive consequences of the irrational beliefs and then generate more rational attributions.

Reviews of the literature on CBT for schizophrenia indicate that it reduces the severity of psychotic symptoms and may contribute to reduction of the frequency of relapses (Dickerson 2000). It also appears that positive therapeutic relationships, higher levels of functioning, intact verbal learning and memory, and at least a modicum of insight into illness contribute to good outcomes in CBT. On the other hand, a primarily negative symptom picture is associated with poorer outcome (Rector and Beck 2001). Further studies are needed, however, because the relative effectiveness of CBT for schizophrenia is more evident when it is compared with routine care than when it is compared with other treatments matched for amount of therapist attention (Jones et al. 2004).

## Vocational Rehabilitation

Despite the fact that many persons with serious mental disorders want to work, estimated rates of competitive employment among those with these conditions range from 10% to 20% (Cook et al. 2005). Cognitive deficits and intrusive symptoms, plus many years of disability, conspire against the majority of individuals with mental illness who desire employment. Unfortunately, vocational rehabilitation approaches that help physically challenged individuals find and keep competitive employment are ill suited to the needs of people with

serious mental disorders. Over the past decade, novel vocational rehabilitation approaches have been developed to help people with serious mental illness enter and stay in the workforce. These include transitional employment and supported employment. In contrast to jobs in sheltered or “make work” environments, current modes of transitional employment involve placing workers with mental illness in enclaves or work crews in actual businesses or service settings. For example, an enclave or group of people with mental illness may be responsible for stocking or unloading merchandise in a large store. A work crew of disabled persons may have a contract to clean store windows, sweep streets, or deliver direct mail. Consumer-run businesses in towns and cities may sell cookies and doughnuts, provide landscape maintenance, or staff a restaurant.

The best-validated and most rapidly developing vocational innovation is supported employment. In supported employment there is no segregation of disabled workers from nondisabled workers. They work side by side in all sorts of white-collar and service jobs. Successfully pioneered more than two decades ago for the developmentally disabled, supported employment has been more recently adapted for the special needs of persons with long-term disabilities. The essence of the program is integrating employment specialists into case management and multidisciplinary mental health teams to provide clients with practical assistance in finding, maintaining, or changing jobs in the competitive employment marketplace. Specialists are experienced and capable in new job development and in matching mentally ill persons to jobs based on interests, strengths, and deficits.

A critical component of the best-replicated version of supported employment, individual placement and support (IPS), is its time-unlimited, follow-along support from the employment specialist and mental health team. IPS is based on three major principles: 1) rehabilitation is considered an integral component of mental health teams, not a separate service in a distant vocational rehabilitation agency; 2) competitive employment in normal work settings is the program’s goal; 3) rapid placement in a job, followed by training on the job, is preceded by an assessment of the preferences, assets, interests, and prior work experiences of the individual.

The IPS staff comprise a vocational supervisor and two or more employment specialists who work with 20–25 patients each. The relatively small caseload has been found optimal, given the substantial individual differences in participating patients, some of whom are not yet symptomatically stable. IPS employment spe-

cialists are not selective in their choice of clients, accepting any client who has made an informed decision to seek competitive employment. The degree to which employment specialists adhere to the program elements and acquire the essential competencies for their role determines the success of the program in obtaining jobs for clients and sustaining the clients’ job tenure.

### ***Empirical Validation***

IPS is by far the best-studied model of supported employment, strengthened by process and outcome evaluations and feedback to the architects of the model at each developmental stage. Four randomized, controlled trials have shown that clients participating in IPS are significantly more successful in obtaining competitive employment than those participating in alternative approaches to vocational rehabilitation such as sheltered and transitional employment, work adjustment, or a group featuring goals and skills (Bond et al. 2001b). The one limitation of IPS appears to be in its clients’ difficulty in maintaining their jobs. Although 50%–60% of severely mentally ill clients actually get jobs subsequent to their orientation to the IPS procedure, resulting in an informed desire to find work, only 50% of those obtaining employment are still working in the same job 6 months later (McHugo et al. 1998).

To minimize stress-related relapses that can defeat the best-intentioned and most effective forms of vocational rehabilitation, practitioners and service systems must ensure that 1) occupational goals are realistically linked to patients’ assets and deficits, 2) managers and clinical leaders of community programs give vocational rehabilitation high priority among the services provided, 3) progress in work is promoted incrementally with abundant supports and reinforcement, 4) social skills training is made available to help the worker develop social support inside and outside the workplace, and 5) pharmacotherapy and crisis interventions services are kept accessible, with close liaison between the mental health team and employment specialist.

### **Integrated Dual-Diagnosis Services**

Individuals with serious mental disorders misuse alcohol and illicit drugs at two to three times the rate of the general population, with a 50% lifetime prevalence of substance use disorders among the seriously mentally ill (Kavanaugh et al. 2002; Regier et al. 1990). Rates of comorbid substance abuse are even higher in subpopulations, including those who are homeless, those who have antisocial personality disorder, and those who

present for treatment in emergency departments (Clark et al. 1999; Mueser et al. 2000).

The consequences of alcohol and drug abuse among this population, termed the *dually diagnosed*, include worsened psychotic and depressive symptoms, decreased rates of adherence to treatment, increased rates of psychiatric hospitalization, and increased risks of violence, incarceration, and homelessness (Drake et al. 2001a). With the recognition that substance abuse adversely affects the prognosis, course, and outcome of serious mental disorders, a growing number of treatments have been developed for dually diagnosed patients that aim to treat both the patients' mental disorders and their substance abuse.

The services offered by such programs include appropriate pharmacotherapy and psychosocial interventions for stabilization of the mental disorder, reduction of or abstinence from substance abuse, and promotion of healthier lives. The most successful treatments for dually diagnosed patients are integrated approaches in which the same treatment team addresses both disorders simultaneously (Drake and Wallach 2000; Mueser et al. 1998). The treatment of a dually diagnosed patient requires a combination of therapeutic techniques drawn from the psychiatric and substance abuse fields. For example, motivational interviewing, an empirically validated process originally designed to engage in treatment those alcohol-dependent patients who deny their addiction, has been tailored to the needs of the dually diagnosed patient.

In motivational interviewing, therapists use Socratic questioning to encourage patients to identify their personal goals in life. Relevant goals include family and job stability, avoidance of jail, improved finances, friendships, and housing. The identification of desired and personalized goals is followed by efforts to demonstrate to the patient how elements of the treatment program can foster the attainment of those goals (Miller and Rollnick 2002). The purpose of this intervention is to engage patients in treatment and sustain their participation in services for the many months or years that rehabilitation requires. Motivational enhancement is particularly valuable for overcoming paranoid patients' lack of trust in treatment providers.

This process of enhancing motivation is important also because most dually diagnosed patients neither seek mental health services nor follow up on their appointments. Although many dually diagnosed persons initially are leveraged into treatment by threatened incarceration, rupture of family ties, or loss of a job, they eventually will need to recognize why continuing in treatment is in their own best interests. Strengthened

motivation is also important for patients whose negative symptoms may interfere with their desire to participate in treatment and their ability to derive pleasure from natural reinforcers in their environment. Natural reinforcers, like social relationships and recreation, are those that exist in everyday life and do not require special development or organization.

Research over the past several years has demonstrated that people with dual diagnosis who are not considering treatment or are toying with possibly entering treatment are more effectively engaged in treatment by motivational interviewing (Barrowclough et al. 2001; Carey et al. 2002). A review of the literature has demonstrated that motivational interviewing can improve treatment adherence and dual-disorder outcomes among people with serious mental illness (Chanut et al. 2005).

### **Money Management**

One of the most important treatment elements in a dual-diagnosis program is money management. Because having funds is associated with craving alcohol or drugs and is a trigger for abusing these substances, many individuals need to have their funds managed by persons who are capable of negotiating budgets with dually diagnosed patients and who are not directly involved in the delivery of treatment to the patients. Research has shown conclusively that "dirty urines" and rehospitalization with drug-induced exacerbation of a chronic mental disorder tend to occur around the beginning of each month, coinciding with the receipt by patients of their monthly Social Security checks (Ries and Dyck 1997; Shaner et al. 1995). Usually, administrative staff or personnel from religious or nonprofit organizations can be deployed or contracted to perform the role of money manager. Because most individuals with serious mental disorders and substance abuse are receiving Social Security benefits, the way to empower the money manager is for him or her to apply for the role of representative payee.

Once designated as representative payee, the money manager receives the patient's monthly Social Security checks directly and then works out a budget plan with the patient. Typically, the money manager or payee sequesters and pays for the patient's rent and psychotropic medications, provides vouchers for food and clothes, and distributes small allotments of discretionary funds on a daily or weekly basis. In this manner, the patient does not have a large amount of money at any one time for the purchase of alcohol or illicit drugs. Money management is usually a voluntary pro-

cess; a therapeutic contract for budgeting is written and signed by the patient and the money manager, and changes in the budget plan can be made whenever both are convinced that the patient is ready to assume greater responsibility for managing his or her funds. The eventual goal of money management is to teach patients how to be responsible in using funds while they are concurrently learning relapse prevention, medication self-management, recreation for leisure, and other skills that are essential for stability and abstinence. When provided consistently and with well-specified contingencies (e.g., increased funds for negative urine toxicology screens), money management is an effective tool for improving substance abuse and mental health outcomes (Shaner et al. 1997).

### **Substance Abuse Management Module**

Although a wide variety of skills for managing their mental disorders, as well for improving the quality of life, are taught in dual-diagnosis programs, the rehabilitation effort must also focus on teaching patients to control their substance abuse. For this purpose, the Substance Abuse Management module was designed and evaluated. This program uses relapse prevention and harm reduction strategies. The behavioral skills taught in the Substance Abuse Management module include quitting drugs after a “slip,” reporting a slip to a therapist or psychiatrist, using drug refusal skills with pushers and friends and relatives, soliciting the involvement of a support person who is willing to accept phone calls at times of craving or when the patient is in a “high-risk” situation, and participating with others in “healthy pleasures.” Dually diagnosed patients who have completed the program have demonstrated more sustained participation in treatment, decreased drug and alcohol use, improved adherence with psychoactive medications, fewer psychiatric symptoms, and improved quality of life (Roberts et al. 1999; Shaner et al. 2003).

### Assertive Community Treatment

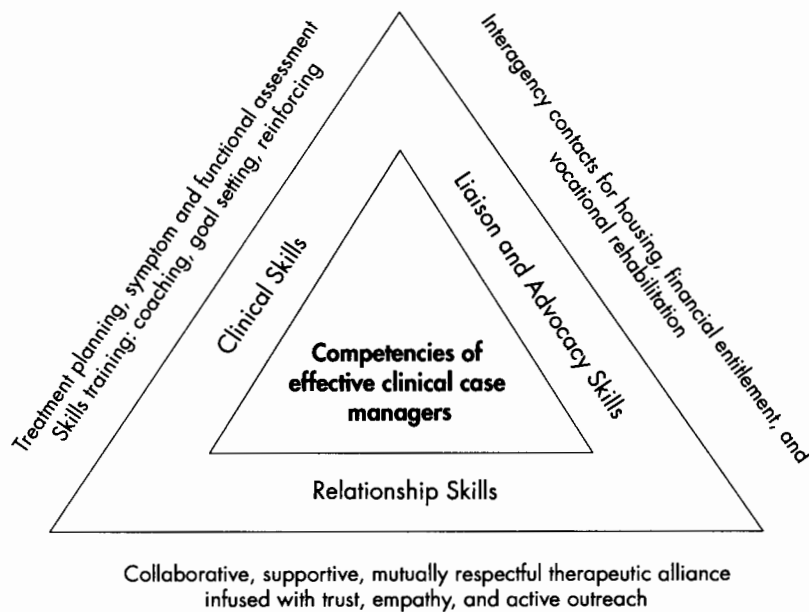
The effectiveness and impact of the assessment and treatment modalities that make up psychiatric rehabilitation rely on a well-coordinated service delivery system that can ensure comprehensiveness, continuity, competence, and consumer involvement. Soon after the onset of deinstitutionalization, clinicians recognized the challenges of providing such care for the seriously mentally ill in a complex “nonsystem” of fragmented community-based services. Community

mental health policy-makers and managers realized that connecting patients with pervasive psychiatric and social support needs to often inaccessible and unpredictable services would require professionals trained to help patients navigate the murky waters of uncoordinated agencies. These navigators are called *clinical case managers*.

A case manager in a psychiatric rehabilitation setting has multiple specific tasks and responsibilities. These include assisting patients in building natural social networks; facilitating the acquisition of housing and employment; helping patients interact with various social and human services agencies for financial support, insurance, and home care; teaching patients the skills they require for illness self-management; monitoring the clinical progress of patients; and, when necessary, undertaking timely clinical interventions. Each of these tasks requires specific competencies that are illustrated in Figure 22–3. By acting as the fixed point of responsibility within a continuum of care, clinical case managers can favorably influence patients’ outcomes toward less social isolation and more independent living.

As experience with case management has grown, its prototype has changed from that of a broker of services to that of intensive clinical service provider and advocate. Intensive case managers attempt to wrap needed services for community function and adaptation around each patient, with the type and amount of services matched to the patient’s individualized clinical status, values, and phase of illness. The “best practice” form of intensive case management is assertive community treatment, or ACT. Organized to be accessible around the clock, 7 days per week, ACT multidisciplinary teams are responsible for providing or obtaining the services that are required to keep clients functioning in the community. Once a patient becomes the responsibility of an ACT team, continuity over the years is assured, so there is much less chance that the individual will fall through the cracks. The mission of the ACT teams includes mobility, “one-stop shopping,” and a single point of accountability for consumers of services.

Whereas the earliest ACT teams consisted of a nurse, master’s-level case managers, and a part-time psychiatrist, current teams have added specialists who are linked closely to the teams but are dedicated solely to provide selective services that can improve the patient’s functioning. One example is a mobile employment specialist, whose role is to connect patients with appropriate jobs by either developing a suitable job or facilitating the patient’s applying for a job. More than



**FIGURE 22–3.** The competencies required of effective case managers in psychiatric rehabilitation encompass relationship skills, clinical skills, and liaison and advocacy skills.

30 studies of the ACT model have documented improvements in participants' symptoms and substance abuse as well as increased compliance with medication and decreased homelessness, incarceration, and use of hospitalization (Bond et al. 2001a). These salutary outcomes are directly correlated with the degree of fidelity that ACT team members maintain to the ACT treatment principles (Winter and Calsyn 2000).

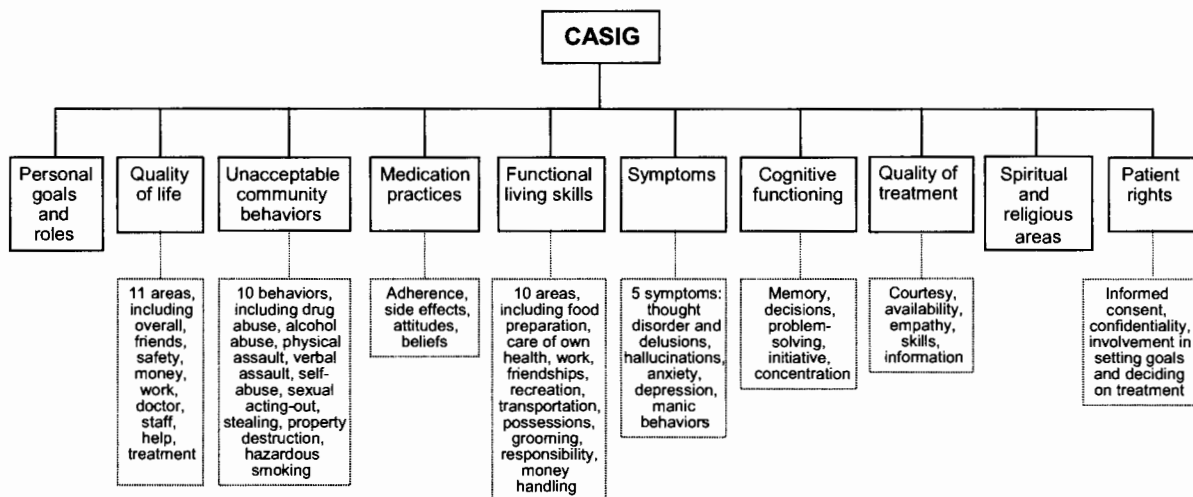
A variant of ACT that emphasizes engineering supports in the home to maintain treatment is called Cognitive Adaptation Training, which is a manual-driven set of compensatory strategies designed to bypass specific neurocognitive deficits using signs, checklists, and electronic devices to cue and sequence appropriate behaviors. Clinicians first assess the cognitive abnormalities of the patient and provide prostheses in the home that prompt a patient to engage in the specified behavior. For example, to remind patients to take their medications at the correct time, therapists may attach a large picture of a medication bottle to the patient's refrigerator with a magnet or may ensure that the patient's medication bottle is kept in clear view where the patient will see it during the day. Medication containers with electronically timed alarms are also used to build and maintain daily activity schedules and to remind patients to attend treatment sessions. These techniques have been shown to significantly improve adaptive functioning, quality of life, and rates of

relapse in schizophrenia patients compared with control conditions (Velligan et al. 2000, 2002).

## ASSESSMENT OF PATIENTS FOR TREATMENT PLANNING, MONITORING, AND CLINICAL DECISION MAKING

The foundation of evidence-based treatment and rehabilitation is the integration of assessment with intervention. A comprehensive, multifaceted, and systematic assessment process is illustrated by the Client's Assessment of Strengths, Interests, and Goals (CASIG). As shown in Figure 22–4, CASIG assesses performance in 10 areas of functional living skills, subjective quality of life in 11 areas, presence of 5 symptoms, 20 medication adverse effects, adherence to medication, and performance of 10 unacceptable community behaviors. The information is collected from the client during a 60- to 90-minute interview, with corroborating information collected from the client's significant others and treatment personnel who know the client well. Additionally, the client's preferences for changing his or her behavior in each area are elicited.

Regardless of the area being assessed or the source of the assessment information, CASIG items have been



**FIGURE 22-4.** Areas encompassed by the Client's Assessment of Strengths, Interests, and Goals (CASIG).

designed to be reliably administered by any of the paraprofessional and professional staff who typically provide services for patients. In fact, even high-functioning clients have been demonstrated to reliably administer CASIG to other patients (LeComte et al. 2004). Moreover, CASIG has been incorporated into programs with diverse staffing patterns, resources, locations, and clinical responsibilities (Prouteau et al. 2005). Most importantly, repeated administration of CASIG over time has allowed clinicians to monitor the progress of individual patients in their treatment and rehabilitation programs and, in the aggregate, monitor the effectiveness and changing characteristics of programs (Wallace et al. 2001).

## DISSEMINATION AND ADOPTION OF EVIDENCE-BASED SERVICES

No matter how effective and beneficial treatment programs are that emerge from randomized, controlled clinical trials conducted by academics, they will have little or no impact if they are relegated to journals and textbooks sitting on lonely library shelves or floating in cyberspace gathering dust or electrons. The utilization by clinicians and systems of mental health care of new psychiatric treatments that have been documented as effective in research has a dismal history in psychiatry. Innovations in mental health services are only slowly adopted by practitioners at best and rarely incorporated into routine clinical practice. Because of the professional

segregation and differing interests and rewards of researchers and clinicians, efficacious treatments are rarely available to the great majority of persons for whom they are intended (Lehman et al. 2004b).

A notable exception is newly approved psychotropic drugs, which are rapidly accepted and prescribed by psychiatrists thanks to the marketing efforts of pharmaceutical companies. There are no comparable means of persuading clinicians to adopt novel and effective psychosocial treatments. Another advantage that new drugs have over new psychosocial services is the ease with which psychiatrists can change their prescribing practices by the flash of a pen on a pad. The "response cost" to psychiatrists in changing from an older to a newer drug is nil. On the other hand, psychosocial services are complex and demand multidisciplinary collaboration, interagency coordination, and lengthy periods of time to acquire the competency to provide the services with fidelity. Given the obstacles that face clinicians and administrators of mental health agencies who wish to incorporate evidence-based practices into their treatment programs, what measures can be used to smooth the way?

Experiences of the past 50 years in medicine, mental health, and various industrial and commercial realms have produced pearls of wisdom that can inform those facing the challenge of disseminating and adopting evidence-based treatments. To meet this challenge, efforts to disseminate high-quality treatment and rehabilitation to ordinary clinical programs that are hospital- or community-based must consider the specific obstacles that impede practitioners from shift-

ing gears to a higher level of care. Transfer of evidence-based treatment technology is possible by designing dissemination methods that take obstacles to utilization into account. These obstacles lie in the attributes of the innovative and evidence-based treatment itself; in the resistance and inertia of the practitioners toward making changes in the way they provide services; in the challenges in the training of practitioners to learn new techniques and use them with fidelity; and in the administrative and organizational commitment, leadership, mandates, resources, and reinforcement contingencies that support the innovative services.

Designing user-friendly modalities or adapting more complex evidence-based services so they can be readily comprehended and utilized by ordinary line-level staff increases the likelihood that practitioners will find the modalities useful and will succeed in their implementation. Encouraging practitioners and mental health teams and programs to reinvent and modify the evidence-based procedures so they fit into the particular constraints and resources of the adopting agencies also will increase the chances that the quality of services will be improved, even if the procedures are no longer exactly like the ones that had been studied for efficacy in controlled clinical trials. Using active and directive in-service training methods, involving the adopting staff in the design of their own training, and using patients from the adopting agency for demonstrations of the treatment techniques all combine to improve the chances that the host organization will improve its staff's treatment skills. When trainers purveying evidence-based treatments are able to connect the ideology and goals of the novel services with those services with which staff members are familiar and identified, adoption of the new techniques is more likely to occur (Corrigan et al. 2001).

Consulting with the upper and middle managers of mental health organizations before conducting dissemination activities can pay handsome dividends for increasing the chances that evidence-based services will be adopted. The administrative "soil" can be fertilized for the growth and development of evidence-based practices by

- Identifying and liaising with local advocates or "champions" for the new techniques, those who have the respect of their colleagues and possess leadership and teaching abilities.
- Persuading top management to include evidence-based practices in the mission statement of the agency and to lend their authority for mandates to staff members to learn and employ the practices.

These mandates can include the granting of authority and accountability to those practitioners who have shown an interest and competence in using evidence-based practices.

- Developing operationalized criteria for annual performance standards of clinicians and quality assurance indicators that include the appropriate use of the practices being introduced.

Using the above principles for dissemination over a 25-year period, the scientist-practitioners of the UCLA Clinical Research Center for Schizophrenia and Psychiatric Rehabilitation instigated changes in the administrative and clinical activities of 11 statewide mental health programs. In 5 of these programs, ranging from Hawaii to Wyoming and Texas to South Carolina, the introduction and effective use of evidence-based practices resulted in the state facilities emerging from sanctions related to charges of providing inadequate psychosocial rehabilitation services and depriving patients of their rights to treatment. Needless to say, an institution or state is highly motivated to improve the quality of services when failure to do so may lead to class-action lawsuits and probationary status imposed by the U.S. Department of Justice.

An international project has been successful in promoting the use of evidence-based practices by employing similar methods for their dissemination and adoption. This effort, coordinated by Falloon and his colleagues, is titled the Optimal Treatment Project (Falloon et al. 2004). It has instigated high-quality, comprehensive, and coordinated services in Spain, New Zealand, Australia, England, Germany, Spain, Sweden, Norway, Japan, Hungary, and Italy. The evidence-based services include early detection and intervention of schizophrenia spectrum disorders, rational pharmacotherapy, social skills training, family participation in treatment, ACT, problem-solving therapy, supported employment, stress management, and continuous goal-oriented monitoring of outcomes. These services are competency based and consumer oriented. User-friendly treatment manuals were provided to the various sites along with intensive training and ongoing supervision and external consultation.

More than 1,000 patients have received these optimal services, with significant improvements in social adjustment and quality of life and significant reductions in rehospitalization. After 2 years of using these evidence-based practices, 34% of the participating patients had recovered from psychotic symptoms, psychosocial disability, and family stress. This contrasted with a recovery rate of 18% in patients and families assigned to the

best available services in each locale. These salutary outcomes have come at a high financial and manpower cost to the participating mental health systems and with considerable pressures, stress, and burden to the consulting and training team. It was realized early on that it was important to encourage flexibility in the use of evidence-based practices, with each international site adopting the principles and techniques in ways that were compatible with its culture, resources, patient population, and staffing (Falloon et al. 2004).

## **TOOLKITS TO MAKE EVIDENCE-BASED TREATMENTS USER-FRIENDLY**

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Sponsored by federal, state, and foundation agencies, the project Implementing Evidence-Based Practices was begun to reduce the barriers to effective dissemination and to spur adoption of evidence-based practices in psychiatry through use of a package of user-friendly treatments in the form of "toolkits" (Drake et al. 2001b). The toolkits were designed to make the collection of evidence-based treatments more accessible to clinicians. Standardized guidelines for the application of the evidence-based treatments are provided in workbooks, and training materials and procedures are also included. The toolkits also provide a means for ensuring that the treatments will be used with fidelity.

The project is being conducted in three phases. The first, production of the kits, has been accomplished, and the kits are now available from the Substance Abuse and Mental Health Services Administration on their web site (<http://mentalhealth.samhsa.gov/cmhs/communitysupport/toolkits/>). In the second phase, pilot demonstrations using the kits at 50 sites in eight states began in the summer of 2003 and were completed in 2005. Specific instructions are given in the toolkits for developing an implementation plan that is relevant to each of the participating sites. Because the rationale and ideology of innovative practices are important prerequisites for clinicians' adoption of the treatments, the toolkits contain information on how the evidence-based practices are related to improving the functioning, quality of life, and recovery of patients. The third phase, national dissemination of the kits, is scheduled to begin in 2007 and is intended to be a broad implementation effort in which the modified implementation resource kits will be made available throughout the United States. At the end of the project, an evaluation

will be carried out of the success of the toolkits in 1) promoting implementation of evidence-based practices, 2) changing organizational characteristics of the adopting facilities, 3) achieving fidelity by which clinicians utilize the practices, and 4) producing favorable impacts on client outcomes (Mueser et al. 2003).

Clearly, the ultimate purpose of the toolkits—"to promote the implementation of evidence-based psychosocial treatments in routine mental health settings"—is a goal that has great potential to improve the lives of people with serious mental disorders. However, implementing even one evidence-based practice will be a costly and time-consuming process that will involve an array of complex policy issues and organizational boundaries requiring long and complicated negotiations to overcome. For example, the goal of implementing each practice using a hard-and-fast fidelity measure ignores the important dissemination principle of allowing adopting agencies to tailor the innovation to fit the specific function, mission, patient population, local resources, and other contingencies they face. Of course, service delivery needs to be monitored, but evidence-based practices can be used without expending valuable funds for directly monitoring fidelity to the model. One such approach, continuous quality improvement, has been used effectively to implement these practices in community-based settings (Morrison 2003).

Given the enormous efforts devoted to this project, a critical aspect of dissemination that perhaps requires more attention is the level of commitment of the community agency to implementing evidence-based practices. Specifically, without a mandate from the top management of an organization, followed up with specific expectations for clinician performance and ongoing program evaluation, the culture change and clinical discipline required to implement and sustain the provision of these practices will not develop (Morrison 2004). Thus, evaluating the cost-effectiveness of the toolkits using a longitudinal time frame and a methodology that captures the organizational characteristics and the total expenditures to the systems of care of using the practices for the patients within their catchment areas is essential to the long-term viability of these programs (Fixsen et al. 2005).

## **CONCLUSION**

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A narrow view of rehabilitation that fails to bring together biological and psychosocial treatment ap-



proaches within an integrated multidisciplinary treatment team will be an exercise in territoriality and futility. To integrate these domains of clinical activity, practitioners must blend competencies from a truly biopsychosocial approach at the levels of the individual clinician and the treatment team. At the team level, a full array of comprehensive, coordinated, and competently delivered services must be accessible to patients, their caregivers and families, and people in their naturally occurring support networks. In addition, the team must involve patients and their supporters as active participants in the ongoing process of planning and implementing services. At the level of the individual practitioner, attitudes and abilities to work collaboratively and with respect for other team members must be actualized and not simply paid lip service. Collaboration is especially critical between the psychiatrist who increasingly is being marginalized as a purveyor of medication and the other team members who are responsible for psychosocial treatments and case management.

Future directions for psychiatric rehabilitation must include the development and implementation of new and effective technologies for assessment and intervention. Some of these will include

- Cognitive remediation, based on increasing evidence of neuroplasticity and the ways that the mature and impaired brain can be influenced by behavioral and environmental interventions. Research on cognitive remediation will allow new rehabilitation techniques to be devised that aim to improve social and vocational functioning. Interdisciplinary collaboration among cognitive neuroscientists, neuropsychopharmacologists, and rehabilitation researchers will determine future advances to be made in cognitive remediation.
- Recovery as a goal for up to half of individuals with schizophrenia, bipolar disorder, and other disabling mood and anxiety disorders. Identifying neurocognitive and neurophysiological correlates of recovery from these disorders will allow for the more precise targeting of rehabilitation strategies to improve course and outcome (Kopelowicz et al. 2005).
- Illness self-management techniques that enable patients, their families, and caregivers to learn ways to improve adherence to treatment and develop relapse prevention plans. These techniques will incorporate the unique aspects of the diverse cultures and languages of the people who receive psychiatric rehabilitation modalities in an attempt to overcome

the significant barriers to access and ongoing provision of mental health services (World Health Organization World Mental Health Survey Consortium 2004).

- Models of consultation between primary care physicians and team members from mental health specialties. This will become of increasing importance as more patients access and demand mental health and rehabilitation services in the context of a scarcity of specialized expertise and personnel for providing direct care to all who need it.

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