The Practice of Psychiatric Rehabilitation: Historical, Conceptual, and Research Base

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Abstract

With the recognition that most psychiatric disorders are associated with severe and persisting disability and the development of effective procedures for improving the long-term outcome of patients, the term "psychiatric rehabilitation" is becoming routinely used in the mental health field. Psychiatric rehabilitation has begun to take its place as a viable, credible intervention approach, even infiltrating professionals' jargon and administrators' program descriptions. The field of psychiatric rehabilitation has progressed to the stage where its history can be traced; its conceptual base and treatment strategies described; its practice observed, monitored, and replicated; and its future growth anchored in a research foundation.

> How many times it thundered before Franklin took the hint! How many apples fell on Newton's head before he took the hint! Nature is always hinting at us. It hints over and over again. And suddenly we take the hint.—*Robert Frost*

The essential elements of a psychiatric rehabilitation approach have been hinted at for well over a century. Different elements of a psychiatric rehabilitation approach have periodically moved in and out of favor, highlighted almost serendipitously as the mental health field progressed through various developmental phases. Currently there is a consensus developing as to what constitutes the field of psychiatric rehabilitation. The overall goal of psychiatric rehabilitation is to assure that the person with a psychiatric disability can perform those physical, emotional, social, and intellectual skills needed to live, learn, and work in the community, with the least amount of support necessary from agents of the helping professions (Anthony 1979). The major methods by which this goal is accomplished involve either teaching persons the specific skills needed to function effectively or developing the community and environmental resources needed to support or strengthen their present levels of functioning (Anthony, Cohen, and Cohen 1983; Livneh 1984; Liberman and Evans 1985).

The work of current researchers and practitioners will determine whether psychiatric rehabilitation becomes an evolving field of study and practice, or merely a historical footnote. At present it seems that many mental health professionals recognize the need for rehabilitation interventions to complement existing treatment approaches (Anthony 1977; Liberman and Foy 1983). However, this recognition of need does not mean that psychiatric rehabilitation is a well-understood field of study. Because all types of mental health disciplines practice psychiatric rehabilitation, and because relevant research and conceptual articles appear in a wide range of professional journals, psychiatric rehabilitation is a field that until recently has been difficult to define.

Historical Context

The origins of the psychiatric rehabilitation field are rooted in several historical developments: (1) the moral therapy era; (2) the inclusion of the psychiatrically disabled into

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public-supported vocational rehabilitation programs; (3) the development of community mental health ideology; (4) the psychosocial rehabilitation center movement; and (5) the development of skills training techniques as an effective mental health intervention.

Moral Therapy Era. The 19th century reformists for more humane care of the mentally ill aimed "to treat the patients as far as their condition would possibly admit, as if they were still in the enjoyment of the healthy exercise of their mental faculties . . . and to make their condition as comfortable as possible" (Bockoven 1963, p. 26). Moral treatment stressed a comprehensive assessment of the psychiatrically disabled, examining the person's work, play, and social activities. For example, a chaplain at a British asylum recognized the importance of patients' reentry into social life "by obtaining for them a change of scene and air and assisting them to obtain suitable employment" (Hawkins 1871, p. 107). Consistent with present-day rehabilitation practice, moral treatment recognized that structured activity can have therapeutic value. Today the goal of psychiatric rehabilitation practice is to have the person *do* something differently.

Vocational Rehabilitation Programs. While initial governmental programs for employment of the disabled, sparked by the end of World War I, focused on the physically handicapped, they did demonstrate that rehabilitation principles could be effectively implemented and won public support for rehabilitation as a societal responsibility. The 1943 amendments to the United States Vocational Rehabilitation Act extended financial support and vocational rehabilitation services to the psychiatrically disabled, with similar legislation appearing at the same time in England. These governmental actions provided legitimacy to the idea of training and rehabilitating people with psychiatric disabilities and grounded the practice of psychiatric rehabilitation in the vocational arena. The discovery of the capacity of the mentally retarded for gainful employment (O'Connor and Tizard 1956) led to studies on the effects of psychiatric disability on work and to the introduction of paid industrial subcontract work into large mental hospitals (Carstairs, O'Connor, and Rawnsley 1956).

The last three decades have seen the scope of rehabilitation move beyond a singular concern with vocational functioning to additional arenas of social and community functioning, but vocational activity has remained a preeminent ingredient in current rehabilitation practices (Beard, Propst, and Malamud 1982; Grob 1983). For example, Lamb (1982) has written that "work therapy geared to the capability of the individual patient should be a cornerstone of community treatment of the long-term patient" (p. 176).

Community Mental Health. The legislation that established community-based treatment for the mentally ill and retarded in the late 1950s and early 1960s endorsed the parity between physical and psychiatric disorders and their treatment. Mental illness and retardation no longer merited removal from society to large institutions; thus, the British Mental Health Act of 1959 supported "forms of training and social services which can be given without bringing patients into hospital as inpatients, or which make it possible to discharge them from hospital sooner" (Royal Commission 1957, p. 76). A new basic assumption prevailed—namely, people with major mental illness should be helped to maintain themselves in the community in as normal a manner as possible. Unfortunately, community mental health centers (CMHCs) failed to provide the comprehensive services needed by the severely psychiatrically disabled (Braun et al. 1981), who were not a high priority population for the CMHCs, perhaps because their interdisciplinary staff members were ill-equipped with techniques for effective work with chronic psychotics (Liberman, King, and DeRisi 1976).

The deinstitutionalization movement, which accompanied the opening of the CMHCs, fostered an appreciation of the value of work training in the preparation of patients for resettlement in the community. Psychiatrists were forced to match their view of the patient's abilities and disabilities against the realities of adaptation in the "real world." Studies were carried out in industrial therapy programs that showed the benefits and hazards of work for the mentally ill, changed the attitudes of citizens and professionals about the employability of mentally ill persons, and led to job placement programs (Bennett 1983).

Consistent with modern concepts of rehabilitation are those additional elements of community mental health ideology—accessibility to and comprehensiveness of services, and continuity of care. The emphasis on treating patients in proximity to their natural families and work settings has now been extended by the initiative of the National Institute of Mental Health for community support programs, which has encouraged State and local investments in a spectrum of services for the chronically mentally ill. In turn, this has meant an infusion of key

operating principles for psychiatric rehabilitation, including case management, coordination, and advocacy with a variety of agencies capable of meeting the full range of needs of persons with severe psychiatric disabilities; involvement of patients and relatives in self-help; and assertive outreach.

Instead of expending great effort on reversing the disabling effects of the social breakdown syndrome from institutionalism, community-based rehabilitation has focused on the somewhat different problems of young adult persons with severe psychiatric disability, many of whom have spent only brief episodes in mental hospitals. Such individuals demonstrate severe handicaps in social adaptation and often resist engagement in professional services; moreover, their deficits, while less extensive than those of the older institutionalized patient, are marked by instability, intercurrent crises, and sensitivity to stress. Thus, even though CMHC personnel seemed to be intrigued by primary intervention for the not yet ill, and enamored of intensive verbal therapy for the not yet chronic, some of the innovations of the CMHC initiative became very much a part of the psychiatric rehabilitation field.

Psychosocial Rehabilitation Centers. The realization that severely and chronically mentally ill persons would rarely experience a full return of psychosocial functioning in the community led to a movement emphasizing accommodation to the needs of these persons in sustaining some semblance of normalization. With mental health professionals' neglect of the chronic mentally ill, nonprofessionals and patients themselves initiated psychosocial self-help clubs located in cities where the mentally ill congregated in large numbers. The early clubs, such as Fountain House and Horizon House, were founded by groups of ex-patients for the purpose of mutual aid and support. These early social clubs gave birth to comprehensive, multiservice psychosocial rehabilitation centers such as Thresholds in Chicago; the Social Rehabilitation Center in Fairfax, Virginia; Center Club in Boston; Fellowship House in Miami; Hill House in Cleveland; and Portals House in Los Angeles. The psychosocial centers assist patients to deal with their "real life" problems by providing opportunities for acceptable role performance and successful mutually interdependent relationships with others, by buffering stressors, and by making available a range of housing and employment options. From the very beginning, these centers have emphasized (1) strategies to help people *cope* with the environment rather than *succumb* to it, (2) health induction rather than symptom reduction, and (3) belief in the potential productivity of the most severely psychiatrically disabled client (Beard, Propst, and Malamud 1982).

Psychosocial centers have not valued the development of therapeutic insight (Dincin 1981). Their orientation has been on reality factors rather than intrapsychic factors, and on improving the person's ability to do something in a specific environment, even in the presence of residual disability (Grob 1983).

Psychosocial centers have played a significant role in the development of the psychiatric rehabilitation field. Their influence in the foreseeable future should be even greater since Fountain House has been conducting a training program to assist CMHCs and other types of mental health settings to establish rehabilitation services based on the psychosocial center model. In a 5-year period, individuals from agencies located in 38 states, the District of Columbia, Sweden, and Canada have been trained. During that time the number of rehabilitation programs has increased from 18 to 148. As the number of psychosocial rehabilitation centers continues to grow, this serves to ensure the presence of settings in which future research can be conducted and new rehabilitation techniques tested.

Skills Training. The most recent development in shaping psychiatric rehabilitation has been the introduction of skills training methods derived from social learning principles, human resource development training, and vocational rehabilitation. Effective coping with life stressors requires skills to promote problem solving, engage others in successful affiliative and instrumental relationships, mobilize supportive networks, and engage in work. Rehabilitation techniques that use active-directive learning principles—behavioral practice and role playing, social and tangible reinforcement, shaping, coaching, and prompting, and generalization activities—strengthen an individual's problem-solving capacities and confer protection against exacerbations of psychiatric symptoms (Cohen, Ridley, and Cohen 1983; Wallace and Liberman 1985).

Skills training has been found effective in group and individual therapy, family therapy, milieu therapy, and vocational settings (Anthony, Howell, and Danley 1984; Liberman et al., this issue; Strachan, this issue). The point of training interpersonal skills is to improve the individual's ability to master the challenges and problems inherent in daily life. It is assumed that, within

genetic and constitutional constraints, each patient tries to do his or her best, so that the problem lies not in resistance or lack of motivation, but in a deficit of some sort. The source of deficit is regarded as less important than using remedial training methods to enhance the individual's ability to cope. Successful coping leads to attainment of social and emotional goals that define competence and adjustment. While skills-training approaches have shown much promise and empirical efficacy (Carkhuff 1972; Paul and Lentz 1977; Carkhuff 1983; Liberman 1984), they have been adopted by practitioners very slowly because of the demanding competencies required of those who seek to do such training (Backer, Liberman, and Kuehnel 1986; Cohen et al., this issue).

Conceptual Model for Rehabilitation

Within the last several decades, a consensus has developed about what constitutes a conceptual model for rehabilitation and its underlying philosophy, as well as what constitutes appropriate rehabilitation practice. (See table 1.) The conceptual model was introduced by leaders in physical medicine and rehabilitation and later extended the mental health disciplines (Anthony 1980, 1982). Both physically and psychiatrically disabled persons exhibit disabilities in social function; handicaps in role performance; needs for a wide range of services, often for a long period of time; and frequent failure to experience total recovery. Rehabilitation of psychiatric disorders, as with physical illnesses, begins when the *pathology* and *impairments* of the acute stage stabilize. In cardiac rehabilitation, then, intervention begins after the myocardial infarction and its associated pain and stress have resolved. Similarly, rehabilitation for a person with schizophrenia begins when the acute and florid psychotic symptoms recede or stabilize. Even if symptoms persist, rehabilitation can proceed within the limits of the individual's capability to respond to

Table 1. Stages in the rehabilitation of chronic mental patients, with examples of the elements in each stage

Stage:	Pathology	Impairment	Disability	Handicap
Definition:	Lesions or abnormalities in the central nervous system caused by agents or processes responsible for the etiology and maintenance of the biobehavioral disorder	Any loss or abnormality of *psychological, physiological,* or *anatomical structure* or *function* (resulting from underlying pathology)	Any restriction or lack (resulting from an impairment) of *ability to perform an activity* in the manner or within the range considered normal for a human being	A disadvantage for a given individual (resulting from an impairment or a disability) that limits or prevents *the fulfillment of a role* that is normal (*depending on age, sex, social, cultural factors*) for that individual
Example:	Brain tumors or infections etiologically linked to psychotic symptoms	Positive and negative symptoms of schizophrenia (delusions, anhedonia)	Deficient social skills	Unemployment, homelessness,
Interventions:	Laboratory and radiographic tests	Syndromal diagnosis, pharmacotherapy, hospitalization	Functional assessment, skills training, social support	National and State vocational rehabilitation policies; Community support programs

training and supportive interventions. The focus of the rehabilitation practitioner is on remediating *disabilities* and compensating for *handicaps* (Wood 1980; Frey 1984).

The pathology in schizophrenia is still poorly understood, although brain-imaging techniques are revealing intriguing leads for structural and functional abnormalities in certain brain regions (Weinberger and Kleinman 1986). Symptoms such as delusions, hallucinations, and thought disorder are the impairments of schizophrenia. These impairments can impede an individual's ability to perform certain skills and activities which, in turn, can limit the fulfillment of social and vocational roles.

In view of the intrusion of symptoms of major mental disorders—delusions, hallucinations, depression, and anxiety—on the cognitive and interpersonal capabilities of afflicted individuals, it is not surprising that such impairments lead to significant disability and handicap. For example, unemployment has been found to be as high as 70 percent in the chronic mentally disabled (Goldstrom and Manderscheid 1982). Unemployment is a prime index of handicap since the demands of work in modern society accentuate the deficits, deviance, and stigma of mental patients. Employment rates following hospital discharge range between 10 and 30 percent, and only 10–15 percent of patients sustain their employment 1–5 years after discharge, with more recent studies revealing lower rates (Anthony et al. 1972; Anthony, Howell, and Danley 1984). Difficulties in work tolerance, endurance, following instructions, cooperating with co-workers and supervisors, problem solving, task orientation, sustained concentration, and ability to accept criticism and ask for assistance are all examples of disabilities that are caused by symptomatic and cognitive impairments and that lead to significant handicap.

Thus, the impairments, disabilities, and handicaps of persons with psychiatric disorders are related to their psychiatric symptoms, and their vocational and social deficits. Symptomatic and functional problems exist on a continuum. For example, the nature of the illness can influence the severity and chronicity of the symptoms and social dysfunctions. Individuals with schizophrenia generally are more impaired and disabled than those with affective or anxiety disorders (Harrow et al. 1978). Within any one type of disorder, however, symptomatic and social-vocational course and outcomes vary considerably, both for different individuals and for the same individual over time (Liberman 1982*a*). Moreover, there are not always high correlations among the major dimensions of outcome of severe mental disorders; for example, social functioning may be adequate even in the face of poor vocational functioning and persisting symptoms (Anthony and Buell 1974; Buell and Anthony 1976; Anthony 1979). Alternatively, symptoms may persist but still permit adequate job adjustment (Strauss and Carpenter 1981; Anthony and Jansen 1984). The variability in the manifestations of major mental disorders is one of the most salient features of these disorders and can be best understood and studied through the interplay of vulnerability, stress, coping, and competence factors.

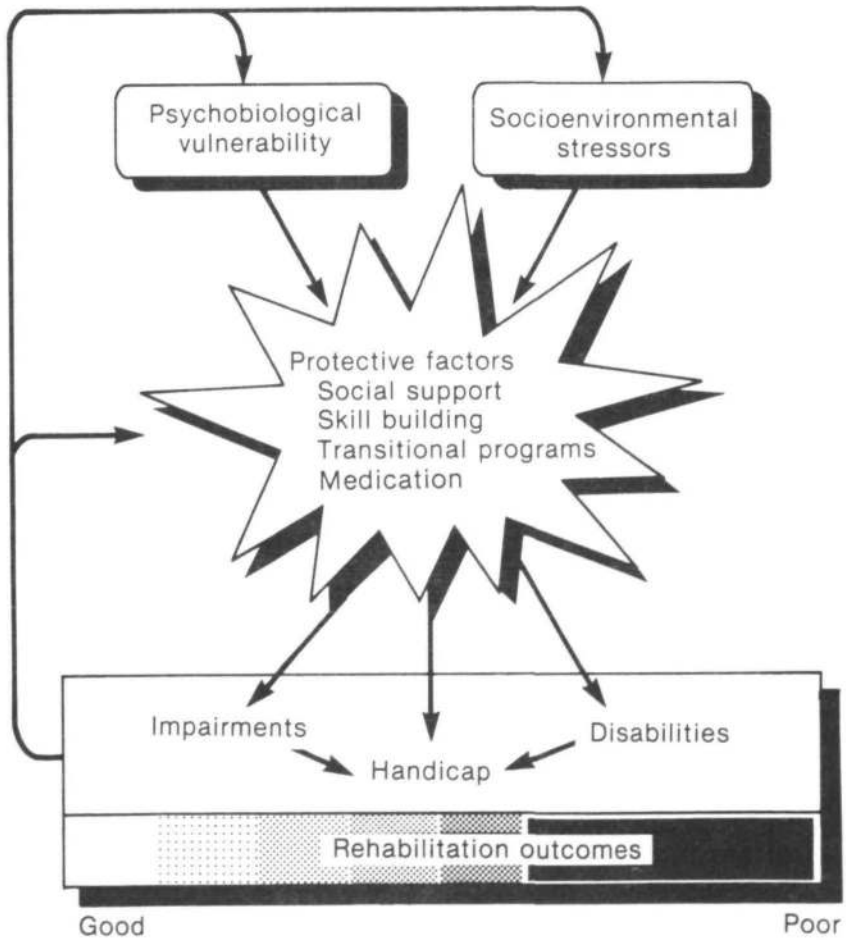
The *vulnerability-stress-coping-competence* model of major mental disorders explains the onset, course, and outcome of symptoms and social functioning as a complex interaction among biological, environmental, and behavioral factors (Liberman 1982*b*; Nuechterlein and Dawson 1984), and is congruent with the rehabilitation conceptualization. Psychobiological vulnerability may result in psychotic symptoms when stressful life events or ambient tensions in the family or work setting overwhelm coping skills.

Vulnerability and stressors (figure 1) are moderated in their impact on impairment, disability, and handicap by the presence and action of protective and potentiating factors. Prime among protective factors are coping and competence exercised by individuals, families, natural support systems, and professional treatment. Examples of protective factors include rehabilitation programs that offer skill building, social support, or transitional employment. Coping and competence can be attributes of the individual or of the social environment. From this point of view, an exacerbation or relapse of schizophrenic symptoms that accompanied use of street drugs of abuse (e.g., PCP, amphetamines) would result from the stressful action of these drugs on the individual's underlying biological diathesis for schizophrenia. In like manner, stressful life events (e.g., loss of a trusted therapist or discharge from long-term hospitalization) that overwhelm the protective effects of medication, personal coping, and social support can also lead to symptomatic exacerbation. Even in the absence of a time-limited stressor, vulnerable individuals can succumb to ambient levels of challenge, tension, or conflict in their environment if they lack the protection conferred by medication, coping abilities, and social support.

The *vulnerability-stress-coping-competence* model highlights the role of specific psychosocial interventions in developing personal and familial

coping skills, and interpersonal and vocational competence as protective factors in the course of mental disorders. Psychosocial protective factors buffer the impact of potentiators and stressors, and thereby reduce the probability of symptomatic relapse. Socially learned coping helps individuals to obtain their instrumental and social-emotional needs by meeting the challenges and solving the problems of everyday life. Coping and competence protect an individual with a given level of vulnerability to schizophrenia from stressful life events and ambient levels of environmental tension. At any level of psychopathology, coping can reduce the social, occupational, and self-care impairments that are associated with the disorder.

Figure 1. Vulnerability, stress, coping, and competence model of mental disorders



In this conceptual framework protective factors that facilitate coping and competence can modulate the deleterious affects of psychobiological vulnerability and socioenvironmental stressors. Coping and competence confer protection against impairment, disability, and handicap.

The model also encourages investigators to design optimal psychopharmacological interventions to modify the effect of psychobiological vulnerability factors. For example, antipsychotic medication serves as a personal protective factor against biological vulnerability; it thereby decreases relapse rates and improves the course of schizophrenic disorders. Antipsychotic medication also raises the threshold at which environmental potentiators and stressors precipitate psychotic symptoms in an individual with a given level of vulnerability to schizophrenic episodes (Leff et al. 1973; Vaughn and Leff 1976*a*, 1976*b*). However, the modulation of biological vulnerability by antipsychotic medication cannot fully remediate a vulnerable individual's susceptibility to relapse when faced with severe stressors, loss of social support, or diminution in personal problem-solving skills. Even with reliable ingestion of neuroleptics, for example, upwards of 30–40 percent of schizophrenic patients relapse within a year (Liberman 1984).

In this *vulnerability-stress-coping-competence* model, the appearance or exacerbation of characteristic schizophrenic symptoms and associated disabilities may occur in susceptible individuals when:

- Underlying psychobiological vulnerability factors are triggered, which is more likely in the absence of optimal antipsychotic medication.
- Stressful life events intervene that exceed the individual's coping skills and competencies in social and instrumental roles.
- The social support network weakens or diminishes;
- Coping and problem-solving skills atrophy as a result of disuse, reinforcement of the sick role, or loss of motivation.

Psychiatric Impairment, Disability, and Handicap

From the point of view of rehabilitation professionals, the psychobiological abnormalities in the nervous system that produce deficiencies in cognitive, attentional, and autonomic functions, and in regulation of arousal and information processing, represent the active *pathology* or *disease* state. The neurosciences are just beginning to develop instruments and techniques that can sensitively measure these abnormalities. However, they can be inferred through assessment of *impairments* that presumably index the more basic disturbances in brain function.

While impairments in physical rehabilitation include vision or hearing loss, reduced range of motion in an extremity, and loss of strength in a muscle group, *psychiatric impairments* can include thought disorder and speech incoherence, delusions, hallucinations, anxiety, depression, loss of concentration or memory, distractibility, and apathy and anhedonia. Thus, psychiatric symptoms and cognitive-emotional deficits are both correlates of the course and outcome of psychiatric illnesses and of the pathological processes in the nervous system. Presumably, these impairments are somewhat specific for each of the major mental disorders and vary with the severity of the underlying psychobiological vulnerability. The specificity of the impairments enables diagnosticians to categorize psychiatric disorders reliably (e.g., *DSM-III*); however, there is considerable overlap between disorders as evidenced by the presence of delusions and hallucinations in a variety of psychotic disorders (Pfohl and Andreasen 1986).

When functional limitations imposed by psychiatric *impairments* result in decrements in the ability to perform certain activities, the individual is said to have a *disability*. *Disabilities* are defined as inability or limitation to perform tasks expected of an individual within a social environment (Frey 1984). Among individuals with severe psychiatric disorders such as schizophrenia, *disabilities* include poor self-care skills (e.g., cooking, cleaning, grooming, and teeth care), social withdrawal and seclusiveness, abandonment of family responsibilities, and work incapacity. *DSM-III* (American Psychiatric Association 1980) has highlighted the importance of these disabilities by including them as criteria for many diagnosable psychiatric conditions. To be diagnosed as having schizophrenia, for example, it is not sufficient to experience the characteristic symptoms of thought disorder, delusions and hallucinations, but the person also must evince a "deterioration from a previous level of functioning in such areas as work, social relations, and self-care" (American Psychiatric Association, 1980, p. 189).

The *disabilities* shown by persons with psychiatric disorders are influenced by the same protective and risk factors that influence the appearance, exacerbation, and remission of symptoms or *impairments*. Thus, correlations between symptoms and disabilities would be expected; however, not every impairment results in a disability. Furthermore, similar patterns of disability can result from different disorders and impairments. Persons with mental retardation or affective disorders may have the same profile of disabilities as those with schizophrenia. Social and vocational disabilities form a major cluster of behaviors that both reflect and influence the course and outcome of a psychiatric disorder.

Research data substantiate a consistent relationship between a person's abilities and vocational outcome. For example, in every study in which work adjustment skills were assessed, they were found to be significantly related to future work performance (Anthony and Jansen 1984). Similar to these data on work adjustment skills, ratings of interpersonal or social skills have been found to predict vocational performance even though social functioning was measured differently in the various studies (Anthony, Cohen, and Cohen 1984).

A final element in the rehabilitation model is *handicap*, which occurs when *disabilities* place the individual at a disadvantage relative to others in society. This can occur through stigma and discrimination, as when employers are reluctant to hire persons with mental illnesses Handicap also occurs because society does not provide settings where mentally ill persons can find accommodation and compensation for their *impairments* and *disabilities*. Wheelchairs and ramps have enabled paraplegics to overcome their impairments and disabilities to find remunerative work and fulfilling recreation; hence, their handicaps are compensated. Because mentally ill persons require special *social environments* to compensate for their problems, overcoming handicap is much more difficult. Long-term institutional care in State and county mental hospitals was formerly society's method of dealing with the *impairments* and *disabilities* of psychiatric patients; unfortunately, institutionalization also created its own set of secondary disabilities and handicaps. That society has not yet succeeded in compensating for the

impairments and disabilities of psychiatric patients is reflected in the extraordinarily high rates of unemployment and homelessness among this population (Anthony, Cohen, and Vitalo 1978; Farr and Koegel 1986).

Psychiatric Rehabilitation

The conceptual framework elucidated above, joined with the rehabilitation view of disability, provides a coherent set of strategies for rehabilitation interventions with the psychiatrically disabled. The clinical practice of psychiatric rehabilitation, just like its counterpart in physical rehabilitation, comprises two intervention strategies: (1) patient skill development and (2) environmental resource development. In developing these intervention techniques, psychiatric rehabilitation practice is guided by the basic philosophy of rehabilitation; that is, disabled persons need *skills* and *environmental supports* to fulfill the role demands of various living, learning, and working environments. The assumption of clinical rehabilitation is that if psychiatrically disabled persons' skills and/or the supports in their immediate environment are augmented, they will be more able to perform those activities necessary to function in specific roles of their choice. In other words, interventions designed to lessen or compensate for the disability are assumed to lead to a decrease in the handicap.

Interventions begin with a comprehensive medical-psychiatric diagnosis and a functional and resource assessment. This enables mental health and rehabilitation professionals to describe individuals by diagnostic disorder, level of behavioral functioning, and amount of environmental supports, key to identifying their impairments and disabilities. Identification of impairments and disabilities permits the mental health and rehabilitation practitioner to prioritize problems, formulate specific goals, and organize and implement treatment and rehabilitation plans. Medical-psychiatric diagnosis and a functional and resource assessment are necessary to match patients to drug and psychosocial treatments and rehabilitation programs that will be effective (Taylor, Liberman, and Agras 1982). Furthermore, knowing the patient's diagnosis aids the clinician in providing the patient and family members with a reasonable prognosis and in determining the degree to which environmental support vs. remedial skills training can be provided to overcome handicaps.

Reduction of Impairments. Rehabilitation interventions with psychiatric patients require reduction or elimination of the symptomatic and cognitive impairments that interfere with social and vocational performance. Interventions for reducing impairments are fortunately available from psychopharmacology. The past 20 years has seen major accomplishments in both treatment and prevention of morbidity from psychopathology through the use of antipsychotic, antidepressant, and anxiolytic drugs. Note that these psychotropic drugs are not panaceas. Even when taken regularly, they are frequently only able to reduce rather than abolish symptoms, and delay rather than prevent relapse. Psychotropic drugs are also associated with unpleasant side effects which at times can interfere with skills-training activities. However, they are usually helpful in reducing impairments to the point where psychosocial strategies can be used effectively to remediate disabilities and handicap.

While a patient's symptoms and syndromal diagnosis clearly impair social and vocational performance, as is highlighted by the mixed symptomatic and functional criteria in *DSM-III*, the remitting and exacerbating nature of most major mental disorders obscures the relationship between psychopathology at time A and behavioral functioning at time B. The changing character of the symptomatic impairments of psychiatric disorders with the passage of time accounts for the insubstantial correlations often found between psychopathology measured during an acute episode and future work performance (for a review, see Anthony and Jansen 1984).

The disappointing failure of research studies to find correlations between impairments and disabilities might be a result of their having been conducted in an era preceding the availability of objective and reliable instruments for eliciting and rating psychopathology. Research using the standardization in diagnosis brought about by *DSM-III* should yield studies that suggest a stronger relationship between syndromes and long-term outcome (Tsuang, Wooson, and Fleming 1979; Pfohl and Andreasen 1986).

Remediation of Disabilities Through Skills Training. Once a patient has benefited optimally from psychotropic drugs and the therapeutic effects of brief hospitalization, rehabilitation strategies use skills training to remediate disabilities in social, family, and vocational functioning. Skills training as a principal strategy in psychiatric rehabilitation starts from the assumption that many patients will suffer persisting disabilities despite the best efforts at pharmacotherapy and hospitalization. A relatively new field, training of social and

vocational skills has relevance for a wide variety of psychiatric patients and for the professionals who serve them.

The psychiatric disorders with the greatest chronicity—schizophrenia, major depression, and organic syndromes—are those most in need of a skills-training focus. While appropriate drug treatment significantly reduces symptoms in most schizophrenics and depressives, many are refractory to drugs and others experience continuing social and vocational handicaps even with symptomatic improvement. The negative or deficit symptoms of schizophrenia, for example, pose a largely unanswered challenge to the pharmacopeia. Social withdrawal, apathy, energy, slovenliness, and anhedonia do not respond as well to neuroleptic drugs as do hallucinations, delusions, and thought disorder. Neither do drugs teach life and coping skills, except indirectly through removal or reduction of symptoms. Most schizophrenic persons need to learn or relearn social and personal skills for surviving in the community.

Skills training can begin immediately after the stabilization of an acute episode or exacerbation of a psychiatric disorder which usually results in the loss of social and role functioning. The goals of rehabilitation professionals are to sustain symptomatic improvement over the long haul; establish or reestablish interpersonal and independent living skills; and help the individual reach a satisfactory quality of life.

Because the goals of rehabilitation center on adjustment to everyday life, it is vital for the schizophrenic individual to participate maximally in the choice of objectives, and in the learning process. Comprehensive rehabilitation involves assessment, training, and modification of living environments in those areas relevant to personal and community life—self-care, including medication and symptom management; family relations; peer and friendship relations; avocational and employment pursuits; money management and consumerism; residential living; recreational activities; transportation; food preparation; and choice and use of public agencies. Specific goal setting, within these generic areas, should actively involve the patient, his or her family, and significant others.

Skills training has proved to be an effective way of increasing the coping and competence of chronic mental patients (Anthony 1979; Wallace et al. 1980; Liberman, Falloon, and Wallace 1984). There are several sources of empirical data that recommend skills training to improve patients' competence and coping ability. Many studies have highlighted the importance of premorbid and postmorbid social competence as a predictor of outcome in major psychiatric disorders (Liberman 1982*a*; Presly, Grubb, and Semple 1982; Hirschfeld et al. 1983). This suggests that social-skills training might improve the long-term prognosis by upgrading the postmorbid social competence of chronic patients. Second, the magnitude of deficits in social and living skills has been well documented in chronic psychiatric patients. For example, in one study major functional deficits in social and personal areas were found in over 50 percent of a sample of chronic psychiatric patients (Sylph, Ross, and Kedward 1978). Two studies of schizophrenic patients found that both discharge and remission rates were significantly higher among patients who had higher levels of living and social skills (Linn, Klett, and Caffey 1980; Farkas, Rogers, and Thurer 1986). In another large-scale study comparing depressed patients and normals, social introversion and interpersonal dependency were the most significant premorbid personal characteristics associated with the patient sample (Hirschfeld et al. 1983).

Moreover, the recent scientific literature has seen publication of well-controlled and efficacious training programs to enhance social, vocational, and living skills (Monti et al. 1979; Nelson and Cone 1979; Monti, Corriveau, and Curran 1982; Falloon, Boyd, and McGill 1984; Jacobs et al. 1984; Kelly and Lampariski 1985). The learning of social and living skills is often affected—for better or worse—by the concurrent administration of appropriate types and doses of psychotropic drugs; therefore, it is important for rehabilitation practitioners using skills-training methods to work in close liaison with medical-psychiatric practitioners who prescribe psychotropic drugs. Judicious administration of psychotropic drugs reduces cognitive and symptomatic impairments, enabling patients to attend to learning stimuli and to engage actively in skills-training procedures (Liberman, Falloon and Wallace 1984).

In 1974, Anthony and Margules published a review which concluded that "persons with a psychiatric disability can in fact learn useful skills" (p. 102). Specifically, the studies reviewed at that time, and again 10 years later (Anthony, Cohen, and Cohen 1984), showed that psychiatrically disabled persons could learn a variety of self-care, social-interpersonal, and intellectual skills.

For example, training programs have had an impact on the psychiatrically disabled person's skills in a variety of areas, including personal

hygiene, cooking, use of public transportation, use of recreational facilities, physical fitness, interpersonal skills, self-control skills, job-interviewing skills, family relationship skills, money management, and job-seeking and work-adjustment skills (Anthony 1979; Falloon, Doane, and Pederson 1985; Wallace and Liberman 1985).

In many of these studies psychiatrically disabled persons who were long-term inpatients with a lengthy history of symptomatic behavior were successfully trained. For example, longitudinal, follow-through study of over 200 chronic psychotic patients who were involved in an intensive rehabilitation program as part of their discharge from Vermont State Hospital in the late 1950s found that approximately two-thirds were functioning in a near-normal fashion in social and vocational roles 20 years later in the community (Harding and Brooks 1984). It has now become an accepted fact that psychiatrically disabled persons can learn skills, and that chronicity and symptomatology may qualify but do not prevent skill learning. The results of these studies are thus seen as supportive of a psychiatric rehabilitation approach, with its emphasis on assessing and increasing psychiatrically disabled persons' skills.

Social and vocational skills training uses procedures based on principles of human learning to train specific interpersonal skills and to promote the generalization and maintenance of these skills. The training procedures have been empirically tested and "packaged" for ready access by practitioners.

While many psychosocial programs bill themselves as offering social-skills training, it is important to distinguish between nonspecific group activities that engage patients in "socialization," and methods that deliberately and systematically use behavioral learning techniques in a structured approach to skills building (Farkas, Cohen, and Nemec 1986). While socialization activities can lead to acquisition of skills through incidental learning during spontaneous social interactions, they do not harness social learning and reinforcement techniques that may be required to promote the acquisition, generalization, and durability of skills needed in interpersonal situations (Liberman et al. 1975).

The learning disabilities experienced by many persons with prolonged psychiatric disorders require the use of highly directive behavioral techniques for training social skills. For example, most psychiatrically disabled individuals have attentional and information-processing deficits. They show hyperarousal or underarousal in psychophysiological testing, and they experience overstimulation from emotional stressors or even from therapy sessions that are not carefully structured and modulated. These individuals often fail to be motivated by the customary forms of social and tangible rewards available in traditional therapy. In addition, they may lack conversational ability, a basic building block for social competence. Persons with schizophrenia, in particular, are deficient in social initiative and perception, and they have difficulty generating alternatives for coping with everyday problems such as missing a bus, making an appointment, or getting help with bothersome drug side effects. They tend to make less eye contact, have more verbal dysfluencies, and use less vocal intonation, all of which may impair social learning (Wallace et al. 1980).

Skills training procedures must be tailored to the needs of the individual patient, as patients present different constellations of social abilities and deficiencies. Moreover, a comprehensive assessment of personal and community resources that can be tapped for promoting the learning of skills should be a prelude to goal setting and skills training (Cohen, Farkas, and Cohen 1986).

Several training models are presently available to the clinician. Longest in use is a treatment "package" for training skills which includes specific, goal-oriented instructions to the patient, the therapist modeling appropriate use of the skills, the patient role-playing interpersonal situations, and the therapist reinforcing and providing corrective feedback to the patient (Liberman et al. 1975; Cohen, Danley, and Nemec 1986). Recently, training within an information-processing framework has been shown to be effective for patients capable of learning problem-solving strategies (Foy, Wallace, and Liberman 1983; Medication Management Module 1986). Disabled individuals are taught to improve their perception of information in immediate interpersonal situations, process that information to choose a response, and send a response back to the other person. However, both of these approaches are ineffective for patients with severe attentional deficiencies. A model using attention-focusing procedures that simplify the learning of complex skills has been effective in training conversational skills in some seriously regressed, chronic psychiatric patients (Liberman et al. 1985).

Remediating Disabilities Through Supportive Interventions. When restoration of social and vocational functioning through skills training is limited by continuing deficits and refractory symptoms, rehabilitation

strategies aim at helping the individual compensate for the disability by (1) locating living, learning, and working environments that can accommodate to the residual deficits and symptoms; and (2) adjusting the individual's and family's expectations to a level of functioning that is realistically attainable. Thus, environmental modification and supportive-prosthetic social and vocational environments are complementary approaches to skills training in the reconstitution of social roles for patients with severe and chronic psychiatric disorders.

Environmental interventions attempt to provide the patient with supportive persons, supportive settings, or both. A "support person" might reduce a person's disability and handicap through a number of different roles (e.g., advocate, companion, counselor, and advisor). Attempts at making the setting more supportive focus on the programs or resources within the environment rather than on support persons, per se (e.g., sheltered work and living settings, and special discharge programs). The distinction between supportive persons and supportive settings simply highlights the different ways in which environmental modifications occur. In practice, these modifications often occur simultaneously.

The main identifying feature of both types of supportive interventions, as distinguished from skill-development interventions, is that they do not attempt to change the patient's behavior systematically and directly. Rather, the attempt is simply to support and accommodate the patient's present level of functioning. The early studies by Katkin (1971, 1973) and a more recent study by Cannady (1982) have clearly demonstrated the positive impact on patient outcome of a support person. Cannady (1982) used citizens from the discharged patients' rural neighborhood to function as "supportive case workers." Over a 12-month period, inpatient days were decreased by as much as 92 percent.

Witheridge, Dincin, and Appleby (1982) have reported on the use of a support team for psychiatrically disabled individuals at high risk for readmission. Working out of the patients' homes and neighborhoods, this team had as its goal to develop an individualized support system for each patient. Of the original 50 participants, 41 remained in the program. One-year followup data indicated that average days hospitalized per year decreased from 87.1 to 36.6. Even better results were obtained in a similar program which has been a model for assertive outreach and advocacy for chronic mentally ill persons (Stein and Test 1978).

A study by Stickney, Hall, and Gardner (1980) investigated the effects of introducing both a support person *and* a more supportive environment, separately and in combination, at the time of the person's hospital discharge. They studied the impact of four predischarge formats, which differed in level of personal and environmental support. The goal of the discharge plans was to increase use of the CMHC and to decrease recidivism for 400 patients discharged from a State mental hospital. The results of the study demonstrated the impact of increasing personal and environmental support on patient compliance with referral and 1-year hospital recidivism rates. With minimal support, the respective referral compliance and recidivism percentages were 22 percent and 68 percent; with increased personal support, 36 percent and 39 percent; with increased environmental support, 68 percent and 31 percent; and with both increased personal and environmental support, 75 percent and 28 percent. Thus, whenever an added element of support was introduced, the referral compliance percentage increased and the recidivism rate decreased.

Ballantyne (1983) and Wasylenski et al. (1985) have reported results from an environmental intervention study based directly on the principles of psychiatric rehabilitation (Anthony 1979). Community rehabilitation workers were trained to provide interpersonal support and case management to patients being discharged from the hospital. Compared to a matched group of patients receiving traditional discharge planning and aftercare, patients in the experimental group were discharged an average of 21 days sooner and participated in approximately twice as many aftercare services. Patient perception of the program indicated high levels of involvement and satisfaction. At 6-month followup, over 75 percent of the patients were still involved in the program; 87 percent reported "feeling understood"; and 88 percent reported "feeling like a partner" in the rehabilitation planning process. In addition, there were significant differences in instrumental role functioning as student, worker, or homemaker.

Weinman and Kleiner (1978) compared the effectiveness of community-based "enablers" with two hospital-based conditions: socio-environmental therapy and traditional hospital treatment. The enablers' major roles were to assist their patients in coping with community life and escort them to various community resources. Personal support proved superior to each of the hospital-based treatment approaches in recidivism, patient

self-esteem, and patient instrumental and role performance.

Remediation of Handicap. In addition to clinical rehabilitation interventions of skill and support development, psychiatrically disabled persons can be helped to overcome their handicaps through societal rehabilitation interventions (Anthony 1972). Societal rehabilitation is designed to change the system in which psychiatrically disabled persons must function. Unlike clinical rehabilitation, its focus is neither on the skills of specific psychiatrically disabled individuals nor on their unique environments. Rather, the focus is on system changes that can help many psychiatrically disabled persons overcome their handicaps. Examples of this type of system intervention are the Targeted Job Tax Credit legislation, changes in the length of the trial work period in the Social Security Disability program, and the development of a European-type quota system for the employment of disabled workers. The importance of these system-type interventions cannot be overemphasized. Obstacles in overcoming a handicap may be more a function of a nonaccommodating and discriminating social and economic system than of the person's impairment and disability. Community support programs are another example of a system-wide response to the problems of persons who are severely psychiatrically disabled (Turner and TenHoor 1978).

Clinical and societal rehabilitation interventions are not mutually exclusive. As a matter of fact, the 1973 amendments to the Vocational Rehabilitation Act recognize the value of societal rehabilitation efforts. The amendments established the principle of affirmative action by contractors who do business with the Federal Government and also attempted to establish the Government as a model employer with respect to architectural access (Stubbins 1982).

Integrating Rehabilitation Strategies

In view of the pervasive impairments, disabilities, and handicaps of most persons with chronic mental disorders, a combined approach to psychiatric rehabilitation, employing skills training and environmental modification strategies, is most often required. As the following case vignette illustrates, the rehabilitation practitioner or team needs to integrate skills training, social support, and governmental incentives and regulations to bring about an optimal outcome.

> A 30-year-old male with a 15-year history of being in and out of private and State psychiatric hospitals decided he would like to get a job in the community after being in a psychosocial work adjustment program for 1 year. He did not have a good work history; for example, 6 months was the longest he had ever been able to hold a job. Using the targeted job tax credit legislation as an incentive to the employer, the psychiatric rehabilitation team was able to find the disabled person a job working in a video repair shop, a job consistent with the client's interests and talents. To keep his job at the repair shop, the patient needed to learn the skills of taking orders from authority figures (showing understanding of what others say and expressing his own thoughts and feelings to others). The team also made the environment more supportive to the patient by educating the employer to the patient's needs, and obtained employer agreement on reducing the initial work load/time until the disabled person became comfortable with the new environment.

In general, all available interventions are used in combination—psychotropic medication; partial and full hospitalization; case management; skills training; social self-help clubs; and environmental support initiatives—to achieve the maximum degree of adaptation that is feasible. The emphasis on each of the types of intervention varies with the nature of the disorder, the premorbid level of competence of the patient, and the phase of illness.

Historically, mental health treatment has tried to develop interventions aimed at the patient's impairments. Somatic and psychological treatment efforts have attempted to alleviate the signs and symptoms of psychopathology. Leitner and Drasgow (1972), in analyzing the differences between treatment and rehabilitation, point out that treatment attempts are directed more toward minimizing sickness, whereas rehabilitation aims more toward maximizing health. Eliminating or suppressing impairments does not lead automatically to more functional behaviors. Likewise, a decrease in disability does not always lead to reductions in impairment. Note that a chronic or severe impairment (e.g., diabetes, schizophrenia, and stroke) does *not* always result in chronic disability or handicap. What the impairment does is increase the risk of chronic disability and handicap.

Conclusion

With an emerging consensus that major psychiatric disorders are stress-linked biomedical disorders, rehabilitation approaches have grown out of eclectic and empirical traditions emphasizing the development of patients' skills or supportive environments for coping with the enduring disabilities and handicaps of illnesses

such as schizophrenia and affective disorders. Psychiatric rehabilitation uses assessment and intervention techniques based on such orientations as social learning and behavior therapy (Paul and Lentz 1977; Liberman and Foy 1983; Liberman and Evans 1985); client-centered therapy and human resource development (Rogers 1957, Carkhuff 1972, 1983; Carkhuff and Berenson 1976); and lifespan developmental psychology (Strauss and Carpenter 1981; Pepper 1985).

The psychiatrically disabled person must be involved as much as possible in setting rehabilitation goals—a process that necessitates the development of a trusting, mutually respectful, and empathic relationship with service providers. The preferred mode of intervention combines judicious and rational psychopharmacology with an educational approach that trains patients directly in the knowledge and skills they need to function in society. "Teaching as treatment" (Carkhuff and Berenson 1976) is supplemented by interventions at the level of the person's immediate environment, as well as at the community support system and societal level. An operational philosophy defining the scope of psychiatric rehabilitation has recently been issued by the National Institute of Mental Health (Stockdill 1985).

> Psychosocial rehabilitation refers to a spectrum of programs for persons with long-term, severe psychiatric disabilities. The goal is to improve the quality of life for these individuals by assisting them to assume responsibility over their lives and to function as actively and independently in society as possible. The programs are designed to both strengthen the individual's skills and to develop the environmental supports necessary to sustain the individual in the community.
>
> Major services, which may be offered on a continuum, should be coordinated with those offered by other agencies providing psychiatric, as well as the broad array of human services. The specific services include opportunities to meet social/recreational needs, vocational training and job placement rehabilitative residential services, training in the skills of daily and community living, and case management services. In addition, some psychosocial rehabilitation programs include client assessment and goal-planning activities, educational programs and family support activities.
>
> The services, which the individual may need to use on a short-term basis or indefinitely to achieve or maintain community adjustment, are provided in the context of a supportive, normalizing environment in the community. They are offered in a manner that emphasizes the "personhood" rather than the "patienthood" of the individual, that maximizes the individual's responsibility, control and feelings of self-worth, and that encourages ownership in the rehabilitation process. [p. 2]

The rehabilitation process encompasses three overlapping stages that recur for as long as the patient requires professional services (Anthony, Cohen, and Cohen 1983). *Assessment* at the symptomatic, functional, and resource levels initiates the patient and professional in a collaborative *planning phase*. Through diagnostic and assessment interviews, inventories, informants, historical data, role plays, and direct behavioral observation, the assessment yields information about the psychiatrically disabled person's current deficits, psychopathology, skills, and supports, as well as the skill level demanded by the living, learning, or working environments in which the patient wishes to function. The assessment information enables the rehabilitation practitioner to work with the patient and family member in the *planning phase* to develop a rehabilitation plan that specifies how the person or the person's environment must change to achieve the goals of rehabilitation. With respect to changes in the person, the plan develops the skill steps the person needs to raise his or her level of functioning to the level required by the environment. With respect to changes in the person's environment, a sequential plan describes what and how the necessary coordination, advocacy, and modifications are to be made. The rehabilitation plan also identifies the persons (e.g., practitioner, patient, agency, and family member) responsible for implementing the various parts of the plan.

In the *intervention phase*, the rehabilitation plan is implemented to increase the person's skills and to make the environment more supportive of the person's functioning. These interventions can lead to the achievement of the rehabilitation goals, first identified during the assessment phase. Repeated and regular monitoring of the change process informs all concerned about goal attainment and enables clinical decisions to be made about continuation or change of interventions and goals.

Psychiatric rehabilitation is the recovery of social and instrumental role functioning to the fullest extent possible through learning procedures and environmental supports. When restoration of functioning is limited by continuing deficits and symptoms, rehabilitation efforts aim at helping the individual (1) acquire living, learning, and working environments that are compensatory; and (2) adjust to the level of functioning that is realistically attainable. Because of the limitations of currently available training methods, patients with more chronically disabling disorders, such

as schizophrenia or organic brain disorders, may be unable to reestablish specific impaired or lost skills. In such cases, alternate compensatory skills and environments, such as learning to function in sheltered employment and residential settings, would be the focus of rehabilitative efforts.

With chronic psychiatric disorders, some amount of continuing symptoms and residual impairment makes necessary the acceptance of disability and the identification of new, attainable goals. Learning how to cope with symptoms, manage medication, and utilize professional resources when necessary become important targets for rehabilitation. When deficits preclude gainful employment, the patient and family need assistance in generating alternative types of meaningful activity, social contacts, and daily structure. While persisting symptoms may limit the level of functional engagement in life, the reciprocal also holds—namely, the more that rehabilitation improves the patient's social and role performance, the more likely that symptoms will be held in check.

Rehabilitation begins immediately after the stabilization of an acute episode or exacerbation of psychiatric disorder which usually results in the loss of social and role functioning. The goals of rehabilitation professionals are to sustain symptomatic improvement over the long haul; establish or reestablish interpersonal and independent living skills; and help the individual reach a satisfactory quality of life.

Comprehensive rehabilitation involves assessment, training, and modification of environments in areas relevant to personal and community life. Professionals contributing to psychiatric rehabilitation include psychologists, vocational rehabilitation counselors, occupational therapists, recreational therapists, nurses, social workers, psychiatrists, and mental health paraprofessionals. The professionals are careful not to overlook the natural caregivers in the patient's living environment—for example, peers, relatives, and operators of board-and-care homes. (Vaughn et al. 1982).

There are many patients who for the foreseeable future will remain relatively refractory to skills training and environmental support programs aimed at independent living and full employment. Such individuals can still benefit, however, from rehabilitation. It is possible to improve social adjustment, role performance, and autonomy and quality of life even within the limited opportunities provided by a mental hospital or residential care facility in the community.

Research conducted by a large number of investigators in the United States and Europe supports the following conclusions:

- Severely psychiatrically disabled persons can learn skills.
- The psychiatrically disabled person's skills are positively related to measures of rehabilitation outcome.
- Skill development interventions improve the psychiatrically disabled person's rehabilitation outcome.
- Environmental resource development improves the psychiatrically disabled person's rehabilitation outcome.

In our attempts to conceptualize psychiatric rehabilitation, the "key and lock" analogy might be apt. While it is desirable to maximize an individual's social and instrumental role functioning through training and reeducative procedures, persistent deficits are likely to plague the patient, the family, and the rehabilitation team. Endeavors to upgrade the patient's repertoire of skills hone the "key," but it is often necessary to modify the "lock"—the patient's environment. Recent interventions aimed at modification of the family environment have led to dramatic reductions in relapse, exacerbation, and rehospitalization of patients with schizophrenia (Strachan, this issue). Other examples of environmental prostheses are sheltered workshops, transitional employment, halfway houses, and psychosocial clubs.

Guiding the rehabilitation professional is:

- Optimism that desirable change is possible if principles of human learning can be harnessed to the needs of the patient.
- Belief that motivation for change can come from special arrangements of the patient's rehabilitation and natural environments, as well as from within the patient.
- Confidence that by building upon the patient's assets and interests, including supportive treatment and family environments, even small improvements can lead to significant functional changes and uplift the patient's quality of life.

The principles of rehabilitation have the potential to tie researchers and professionals engaged in psychiatric rehabilitation into a cohesive, empirically based field. Rehabilitation practice has taken root in a variety of settings, including mental health centers and clinics, mental hospitals, general hospitals, psychosocial centers, and community support programs. More than ever

before, psychiatric rehabilitation is perceived as a legitimate and credible field of practice, education, and research; as complementary to the existing fields of prevention and treatment; and as a necessary component of mental health system planning and policy-making.

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