Recovery from schizophrenia and the role of evidence-based psychosocial interventions

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Recovery is the new vision for mental health services, in which two definitions of recovery dominate. Firstly, recovery is an outcome; research suggests that many people with serious mental illness learn to cope with their disabilities so they can achieve major life goals related to independent living. Secondly, recovery is a process; it reintroduces such important values as hope, empowerment and goal orientation into the service system. Both definitions have data that support its assertions, suggesting that an integration of the two offers the most complete and effective picture of recovery. Psychosocial interventions integrated with psychopharmacological strategies have been shown to most effectively help individuals recover. Effective interventions are those that are evidence based and include, illness management, supported employment, assertive community treatment, services to families and dually diagnosed services.

Recovery is a new and visionary construct that has dominated the mental health system over the past decade and has led to a significant retooling of interventions and services. After a careful examination of the state of care at the turn of the century, President Bush's New Freedom Commission believed a recovery-focused approach to services is essential for providing the best care [1,101]. However, the vision of recovery preceded any clear discussion of what the construct is and how it might be measured. Moreover, the identification of interventions and services that promote recovery has recently begun with a focus on selecting those interventions that have a proven evidence base. Given these movements, there are two main goals of this review. First, I will summarize the various definitions of recovery, as well as the research findings that support it. Second, I will discuss evidence-based psychosocial practices that promote recovery. The review ends with an integration of the two literatures. The interested reader may wish to examine a review by Ralph and Corrigan for a more complete description of recovery and corresponding services [2].

Two definitions of recovery

As outlined in TABLE 1, recovery has been described in two ways. First, recovery is understood in terms of outcomes; people with significant psychiatric rehabilitation are able to totally overcome or learn to live with psychiatric symptoms and dysfunctions. As a result, they are successful in such important life goals as full-time employment and independent living. Alternatively, recovery is seen as a process. According to this perspective, recovery has reintroduced such important processes as hope and well-being into rehabilitation. Serious mental illness needs not be a prognosis of disease and deterioration.

To put the definitions into perspective, we begin back at the turn of the 19th Century when early perspectives on diagnosis and prognosis were being formed. Emil Kraepelin, the father of modern psychopathology, first gave voice to the pessimistic ideas regarding serious mental illness that affected almost a century of subsequent ideas and services. According to Kraepelin, the prognosis of patients diagnosed with schizophrenia and...
other serious psychoses is expected to be marked by a progressively degenerative, downhill course that is unresponsive to treatment [3]. This perspective was evident in earlier versions of the Diagnostic and Statistical Manual of Mental Disorders (DSM). The outlook for individuals with schizophrenia was poor. Hence, patients, family members and professionals needed to limit the possibilities and dreams for individuals diagnosed in the schizophrenia spectrum.

Consider how this prognostic paradigm should play out in long-term follow-up research. If Kraepelin were correct, following individuals diagnosed with schizophrenia at a young age for 20 or 30 years should yield the same decrepit end point (i.e., they should be overwhelmed by psychotic symptoms, be cognitively dysfunctional except for the most elementary abilities, and be unable to maintain major roles in such important life domains as work, housing and relationships). Researchers began this line of research in the 1950s [4]. Briefly, these studies identified adults who met diagnostic criteria of the time for schizophrenia and who were relatively young. They then repeated regular assessments to determine what became of these individuals. At the 20- and 30-year mark, they roughly found a rule of thirds [4,5]. Approximately a third of the sample seemed to have moved beyond the mental health system entirely and was pursuing life as what might be construed as normal; competitive jobs, independent housing and long-term relationships. Approximately one-third of the sample achieved a semblance of these goals with the support of a competent mental health system. Approximately a third of the sample seemed to demonstrate a continued undulating course marked by periods of symptoms and significant disabilities interspersed among periods of relative remission. Note that only a third of this last third (or a ninth of the entire sample) needed regular hospitalization to manage their illness. Hence, only approximately 10% of the group that Kraepelin predicted would end up demented actually showed any syndrome that approximated this end point.

One important group to focus on in terms of our definition of recovery is the first third – individuals who seemed to overcome their psychiatric illness without mental health services. This group suggests that some individuals with mental illness recover on their own. Put another way, the course of what has traditionally been considered an illness with poor prognosis may include people who naturally recover. This conclusion is supported by a separate body of research, nationwide epidemiological studies that have documented the prevalence of the major mental illnesses [6]. One of the interesting findings in these analyses is the large number of people who meet diagnostic criteria for an illness like schizophrenia but who never come to the attention of the mental health system [7]. This finding may result from problems with the mental health system at the sociocultural level, either socioeconomic barriers that prevent distribution of ample services throughout the USA or stigma that dissuades potential patients from seeking services [8]. Alternatively, these findings may be explained by another conclusion; many people who meet criteria for major mental illnesses are not sufficiently distressed to seek mental health services. Instead, they are able to cope with the difficulties using their existing skills and resources. Put another way, they achieve life goals, psychological well-being and a quality-of-life naturally. Research has yet to specify the numbers within the population who fall into this category. Nevertheless, it is apparent that a large number of individuals seem to recover from mental illness without any intervention.

Recovery as an outcome

Note that another third of the samples in the long-term follow-up studies seemed to reach recovery after participating in mental health services [5]. For some researchers, this frames recovery by understanding serious psychiatric disorder as a medical illness [9]. Namely, careful diagnosis of the breadth and depth of a disorder, and corresponding prescription of treatments and services that target identified symptoms and disabilities, will produce recovery. The reader should note that we do not use the medical model in a pejorative sense here. We recognize that treating the illness in a medical sense has led to significant benefits for a segment of the population. Liberman and Kopelowicz defined criteria that indicate a specific outcome or end point as recovery [10]:

- Psychotic symptoms: ratings of moderate severity or below on scales reflecting positive and negative symptoms;
- Independence: whether living alone or with others, recovery represents reliable adherence and self-management of medications; budgeting of one’s funds for housing and food; fulfilling scheduled appointments with mental health, general health and social agencies and personnel and taking care of personal possessions and apartments without supervision by others;

Table 1. Elements of the two definitions of recovery.

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<tr>
<th>Recovery as an outcome</th>
<th>Recovery as a process</th>
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<td><strong>Benchmarks of outcome:</strong></td>
<td><strong>Important benchmark processes:</strong></td>
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<tr>
<td>• Relief from psychotic symptoms</td>
<td>• Hope about the future</td>
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<tr>
<td>• Independence in matters related to housing</td>
<td>• Psychological well-being</td>
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<tr>
<td>• At least part-time work or school</td>
<td>• Goal orientation</td>
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<tr>
<td>• Regular social and recreational activities</td>
<td>• Personal empowerment</td>
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Recovery as a process

One of the unintended consequences of Kraepelin’s views concerning serious mental illness was to remove hope from the prognosis of people with schizophrenia. Instead, Kraepelin’s perspective framed schizophrenia as an inalterable journey into failure and disquietude. One of the purposes of recovery as a movement that emerged from consumers, survivors, and patients was to re-inject hope into the lives of people diagnosed with these disorders. As a result, recovery from this perspective is less concerned about outcomes – whether the person achieves some kind of symptom and disability-free end point – and more about processes. What actions and activities foster an environment where a person’s search for a meaningful life can be supported? The wisdom of leaders in the consumer movement illustrates points regarding a meaningful life.

‘Recovery is a process, a way of life, an attitude, and a way of approaching the day’s challenges. It is not a perfectly linear process. At times, our course is erratic and we falter, slide back, regroup, and start again. The need is to meet the challenge of the disability and to re-establish a new and valued sense of integrity and purpose within and beyond the limits of the disability; the aspiration is to live, work and love in a community in which one makes a significant contribution’ [11].

‘One of the elements that makes recovery possible is the regaining of one’s belief in oneself’ [12].

‘Having some hope is crucial to recovery; none of us would strive if we believed it a futile effort... I believe that if we confront our illness with courage and struggle with our symptoms persistently, we can overcome our handicaps to live independently, learn skills and contribute to society, the society that has traditionally abandoned us’ [13].

An important construct in recovery as a process is psychological well-being. Recovery here is more concerned with a sense of meaning in life and personal comfort rather than being symptom free and without disabilities. Intellectual work in this area has focused on such important ideas as validation of personhood, recognition of common humanity and tolerance for individual differences [14]. Note that, although these are important concepts in the study of human development, these constructs have been absent from several domains of psychiatry.

An essential element of recovery as a process is empowerment. People must have the power to act on their decisions that produce an optimistic future which reflects their personal goals. Research has shown that empowerment can be a complex phenomenon that includes a sense of personal control over one’s environment and a feeling of agency in one’s world [15,16]. Studies have also indicated that these forms of empowerment are highly correlated with measures of recovery that reflect process [17,18].

Although recovery as a process deals with relatively more nebulous issues of purpose and vision, this perspective does not mean that assertions like these escape research evaluation. Ralph has reviewed more than a dozen studies that have examined some components of the process involved in recovery [19,20]. Two points are important here. First, consumers and others who embrace recovery as a process still recognize the value of empirical research of this construct. These kinds of analyses separate validated aspects of the processes from biased perceptions. Second, investigations of recovery as a process offer some significant methodological problems. However, our presentation of recovery as an outcome also highlights methodological conundrum in studying these concepts. We do not believe that the presence of barriers in using more traditional research methods highlights a failure of the theory as much as a challenge for researchers to develop strategies for testing the models.

Evidence-based psychosocial interventions

With the elaboration of recovery models has come an interest in identifying strategies that promote this construct. A mixture of psychosocial and medical interventions is typically best. Moreover, providers, consumers and researchers have all called for evidence-based interventions. Evidence-based approaches yield both benefits and limitations. In terms of advantages, a focus on evidence-based approaches assures that consumers will be involved only in services that have been shown to be effective. This is reassuring to all stakeholders who have witnessed a mental health system that has pursued treatments in the past that have not only been ineffective (e.g., psychoanalytic therapy for schizophrenia) but have also yielded unintended and egregious effects (e.g., insulin shock therapy). Hence, a list of evidence-based treatments is an invaluable tool for the public mental health system. Facing ever-restricted budgets that fail to sufficiently fund the mental health service needs, public administrators can now decide to invest their resources in proven services [21].

Disadvantages in an evidence-based approach to identifying effective services have also been cited. Some advocates have noted that the criteria for classifying a service as effective and worthwhile - an empirical evidence-base - reflects the priorities of the research community, but not necessarily the community of consumers, survivors and ex-patients [22,23]. In particular, traditional empirical research does not necessarily include the kinds of epistemologies that led to the development of such important ideas of the consumer movement as empowerment and recovery [24,25]. Moreover, empirical research approaches do not easily crosswalk with more ethereal constructs, such as spirituality [26] - a construct that has a central role in many consumer conceptions of recovery. Finally,
the excitement regarding evidence-based initiatives, puts several possible intervention programs that may be effective candidates for treating people with mental illness into limbo because definitive research has yet to be concluded. A prominent example are consumer-operated services, which include support groups, drop-in centers, and education programs that were developed by people with mental illness for people with mental illness [27,28]. Although both consumer and mental-health advocates have endorsed this approach as a fruitful avenue for meeting some of the needs of people with serious psychiatric disorders [29], research that meets consensus standards for evidence-based practices is lacking. Hence, consumer-operated services do not fall on the evidence-based practices list, thereby excluding what a sizeable proportion of the consumer community believes to be an effective approach to issues related to recovery. Some investigators question whether typical outcome research strategies that govern assessment of clinical interventions, such as the randomized trial, are appropriate for research on consumer-operated services [30,31]. The sometimes tenuous balance between the costs and benefits of an evidence-based approach needs to be determined in additional intellectual enterprises, which include empirical research.

Consensus efforts to identify evidence-based interventions

Concurrent with a movement towards recognizing recovery over the past decade have been calls for evidenced-based treatment. Two consensus-based efforts inform the review in this paper. The first, named the implementing evidence-based project, was sponsored by four groups including the Robert Wood Johnson Foundation and the Center for Mental Health Services [32–34]. The project sought to improve service access through the development of standardized implementation packages, created in concert with different stakeholders including consumers, family members, providers and administrators. The second review, named the Patient Outcomes Research Team, sought similar goals by extensively reviewing the research literature on treatments and services for people with schizophrenia [35,36]. The clinicians and services researchers involved in these tasks have asserted that the body of interventions made available for individuals with serious mental illness should be limited to those that have survived rigorous empirical testing. A list of services that consensus groups have identified as evidence-based includes:

- Illness management skills [37]
- Assertive community treatment [38]
- Supported employment [39]
- Family psychoeducation [40]
- Integrated treatments for mental illness and substance abuse [41]

It is assumed that these psychosocial interventions will be integrated with targeted approaches to psychopharmacology [42,43]. A classic example of practice guidelines for psychopharmacology was the Texas Medication Algorithm Project (TMAP) [44,36]. Our goal here is not to summarize psychopharmacological practice guidelines in any detail because several other papers in this series do so in greater depth. Briefly, TMAP guidelines include treatment manuals, expert consultation by phone and on site, plus extensive multistep education programs for people with mental illness and their families. Both explicit and implied in pharmacological guidelines like these is a need to provide such services amid a comprehensive psychosocial intervention system [42]. Psychopharmacological and psychosocial services describe a circular set of interactions. Medication management approaches help many people overcome flagrant cognitive disabilities consistent with psychosis. In this way, they are better able to participate in psychosocial services. Participation in these kinds of services, in turn, help the person better understand the role of medication in his or her treatment. The remainder of this paper examines the form assumed by these psychosocial interventions.

Illness management & recovery

Unlike many of the other evidence-based psychosocial interventions, illness management describes a collection of interventions, that seek to achieve a broad set of goals [29]. These interventions include social skill and other psychoeducational programs, medication-focused programs, relapse prevention, coping-skills training and nonpharmacologic treatment for cognitive disabilities. These professionally-based strategies help individuals collaborate in their treatment thereby reducing the possibility of future relapse. Each of the illness-management programs is summarized in Table 2 and reviewed here.

Skills training programs

Many people with psychiatric disabilities are not able to deal with their illness and the commensurate disabilities that block life goals. Skills training programs seek to help people learn these behaviors and practice trying them out [45,29]. Skills training programs rely on social learning strategies to help the person acquire the targeted skills [46]. These include modeling, role play and generalization skills. First, the training instructor models how to correctly perform the skill; for example, they may demonstrate how to assertively say no to unreasonable requests. They are prepackaged skills training programs that include videotaped actors modeling the targeted behavior [47]. Next the student is asked to role play or behaviorally rehearse the skill. Instructors set up a vignette in which students try out the new skill (e.g., the student is to practice saying no when a peer hits him/her up for a dollar). Finally, the instructor attempts to help the person generalize newly learned behaviors [48]. Several strategies facilitate behavioral generalization. The most common is to have the student practice recently learned skills in a variety of social situations (e.g., practice saying no on the job, with one’s roommate and at the neighborhood store).

Three skill areas are addressed by skills training programs: psychoeducational skills, medication management and coping skills. First, psychoeducational skills programs seek to teach concrete information concerning the mental illness with which individuals struggle, and corresponding treatments. For the most part, these approaches increase knowledge regarding serious
<table>
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<th>Evidenced-based intervention</th>
<th>Fundamental principle or component</th>
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| Illness management and recovery | • Skills training programs  
• Nonpharmacologic treatment for cognitive disabilities  
• Relapse prevention |
| Supported employment | • Competitive employment is the goal  
• Rapid job search  
• Integration of rehabilitation and mental health  
• Attention to consumer preferences  
• Continuous and concrete assessment  
• Time-unlimited support |
| ACT | • Rather than brokering services, treatments are provided directly by the ACT team  
• The range of services is comprehensive and flexible  
• Team members share responsibility for those served by the team  
• There is no time limit on the receipt of services  
• The staff-to-consumer ratio is small (approximately 1–10)  
• Interventions are carried out in the most convenient locations for the consumer  
• The team is assertive in engaging people in treatment |
| Services to families | • Include family members as equal partners  
• Be flexible in approaching the family  
• Assess family strengths and limitations  
• Help family to learn communication skills  
• Provide training in problem-solving strategies  
• Help family members expand their support network  
• Help the family develop a crisis plan  
• Address feelings of loss |
| Services for the dually diagnosed | • Assertive outreach  
• Motivational interventions  
• Social support interventions  
• Long-term perspective  
• Comprehensive  
• Culturally competent |

ACT: Assertive community treatment.
mental illness, but the increment of knowledge does not correspond with mastery of behaviors that help to better control symptoms and improve disabilities [49, 50]. Second, skills training programs have also targeted knowledge concerning medication management; knowledge that will improve collaboration between people with schizophrenia and their psychiatrist. The training programs focus on the main effects and side effects of medication, as well as practical steps to correctly self-administer medications each day. Medication-based skills training has been augmented by behavioral tailoring where medication management steps are integrated into the person's daily routine [51]. In addition, motivational interviewing has been used to extend skills training approaches [52, 53]. The therapist helps the person consider the advantages and disadvantages of medication administration. Third, skills training helps people learn coping skills. These skills include stress-management approaches, which have been demonstrated to effectively reduce some of the anxiety-related symptoms of serious mental illness [54]. Coping skills training programs often rely on cognitive strategies like reframing, which are discussed in the next section.

Nonpharmacologic treatment for cognitive disabilities

Research shows that many of the cognitive dysfunctions that result from serious mental illness do not resolve when the person is administering medications according to prescriptions [55]. In these instances, two approaches to cognitive disabilities are used. Cognitive therapy adopts the strategies developed by Aaron Beck to challenge the content of disordered thought [56]; for example, delusional beliefs that interfere with the person's life goals [57, 50]. Cognitive therapists help the person to describe the belief ("I believe I am being followed by the CIA") and the harm it causes ("I don't go out because I don't want the CIA to hurt me"). Working in collaboration, the person and therapist jointly challenge these thoughts. This could be done by having the person ask others about whether the thought might be false with special effort focusing on personal mentors, e.g., one's minister or elder family member. The purpose here is not to eradicate the thought in its entirety but to frame it so movement on life goals can continue (e.g., even if the CIA is after me, there are others I know outside my apartment that will help me. Hence, I do not have to stay cooped up and can work on my job-related goals). While challenging the thought, the therapist also helps the person forge counters for future times in which the delusion becomes prominent.

There are also cognitive rehabilitation programs that help to resolve problems that result from information processing. Many people with schizophrenia experience significant decrements in attention, memory or executive functioning. Two general approaches have been used to address these problems [58]. Cognitive exercises attempt to improve deficits by having the person practice discrete skills over time. For example, a person might be asked to hit a color-coded key in response to a bell. These approaches are typically wedded to computer programs and the possibilities that emerge from developing software. While these approaches have been to improve the targeted information processing task, rarely do findings generalize to more ecologically valid tasks (e.g., tracking a cashier as he returns US$3.23 in change).

Situational adjustments to provide cues for behaviors have been more successful [59, 60]. An example would be posting medication management rules by the medicine cabinet that prompt the person on how and when to take his/her drugs. This approach to deficits in information processing is similar to behavioral tailoring in the sense that a person's living and work settings are constructed, such that important behaviors are cued externally.

Relapse prevention

Relapse is very common in people with psychiatric disabilities. Relapse prevention seeks to teach people ways to cope with relapses during periods when the person is thinking clearly and is not overwhelmed emotionally [61, 62]. When participating in relapse-prevention programs, people learn how to recognize environmental triggers and early warning signs of relapse. They then pair identification of these cues with a behavioral response plan (e.g., a person who recognizes when she becomes anxious has decided to pair this with a brief walk around the office building to calm down).

Illness self-management

The interventions described in this section are mostly provided by professionals to help people with schizophrenia and other serious illnesses better manage their symptoms and disabilities. These kinds of treatment are distinguished from another approach called illness self-management. In self-management, services are created and provided by people with mental illness for people with mental illness [63, 27]. Essential to these programs are actions that foster the helper principle; namely, people feel better regarding themselves not only when they receive support and resources from peers, but also when they are able to give, and be of assistance, to others. This kind of help can boost the self-esteem of participants. That, in turn, can suppress self-stigma that might worsen the person's experiences of mental illness [64]. People who believe they are personally empowered in most facets of their life are less likely to experience the self-stigma of mental illness.

As mentioned earlier in this paper, research on illness self-management has not progressed to the level of other evidence-based interventions. The Substance Abuse and Mental Health Services Administration supported a multisite study on these types of program, but results from the multi-year project are not yet out. Moreover, there is some thought that the exigencies of self-help programs may undermine the requirements of randomized trials so that more innovative research paradigms are needed [30]. An important direction for future research is to determine whether the evidence exists to support illness self-management approaches.

Supported employment

A variety of vocational programs has been developed over the last decades to address employment goals. These include sheltered workshops (where a person can pick up work-hardening
skilled in a safe environment), transitional employment (where a person can trial new work skills for relatively brief periods in jobs managed by a vocational center) and supported employment (where people are hired into a real-world job and obtain regular support). Research shows that participation in workshops and transitional employment programs does not lead to significant improvements in real-world jobs, while supported employment yields measurable increments in new jobs [39,65,66]. Individual Placement and Support (IPS) is a classic example of supported employment [65]. Benefits from supported employment programs like IPS result from six fundamental principles.

**TABLE 2 [67].**

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<thead>
<tr>
<th><strong>Competitive employment is the goal</strong></th>
<th><strong>Continuous &amp; concrete assessment</strong></th>
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<tr>
<td>Proponents of workshops and transitional employment believe that people with psychiatric disabilities need to be gradually introduced into real-world jobs. Moving without care by rashly placing someone in a real-world job may precipitate relapse. However, research suggests that real-world work is what people want, with competitive salaries and vocational possibilities brought about by employment in the real world. Intermediary steps like workshops and transitional employment do not facilitate success in the competitive job market.</td>
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<td>Service providers frequently spend much time and effort assessing a range of interests, intellectual abilities and symptoms when the person is first introduced to the program. This group of providers thought that a wide profile of assessments needs to be collected so the person is fully understood. Assessment decreases in frequency thereafter. Proponents of supported employment believe that many of these tests provide irrelevant information. Instead, assessment should focus on meaningful questions. What kind of job does the person want? What kind of problems related to mental illness may undermine successful work? In addition, assessment needs to be continuous because participants of supported-employment programs are dynamic beings. How do job interests and possible problems vary during the person's job pursuits?</td>
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**Rapid job search**

Many vocational programs believe in the need of pre-vocational services where introduction of people to the work world should proceed slowly. In this way, the person is not overloaded by the bombardment of real-world work stressors. However, consumers of pre-vocational services often complain that a slow approach to work is frustrating. Demands from real work are an abstraction during the downtime before actually engaging in the job search. Hence, participants in supported employment are rapidly introduced to the work world, in order to find a job. In this way, they can more quickly address the challenges of getting a job, as well as enjoying its benefits.

**Integration of rehabilitation & mental health treatment**

Traditionally, work-related services have been offered by vocational counselors and problems related to mental illness have been dealt with by psychiatric providers. This kind of compartmentalization can be precarious because work and mental health problems are not independent phenomena in reality. The symptoms of mental illness influence work and challenges from work affect a person's illness. This means vocational and mental health providers need to form a single team. It also means that vocational counselors need to be knowledgeable about mental health practice and the mental health team conversant in work-related rehabilitation.

**Attention to consumer preferences**

Frequently, service providers assume that people with psychiatric disabilities are incapable of working in anything other than entry-level blue-collar jobs. As a result, jobs are limited to such careers as food service or housekeeping. In fact, people with mental illness differ in their job goals as much as the general population. People with and without disabilities are likely to fail when finding themselves in a job that is not personally of interest. Hence, consumer work preferences need to be central in looking for a job.

**Time-unlimited support**

State offices of vocational rehabilitation have made closing cases a priority; that is, ending services after the person has attained some goal, such as 3 months' work. Unfortunately, mental illness and disability issues do not end when beginning a job. In fact, the person's need for services might increase during the year after going back to work. Research has failed to identify predictors of job failure or illness exacerbation. These episodes could recur at any time. Hence, support should be provided continuously for an unlimited duration.

**Assertive community treatment**

Research has shown that people with psychiatric disabilities often need ongoing, community-based support, in order to live independently. Assertive community treatment (ACT) is an especially well studied service that helps people with serious mental illness accomplish independent living goals [38]. Seven principles guide the provision of ACT; these are reviewed in TABLE 2 [68,69]:

- All treatments are provided by the ACT team. This is unlike alternative forms of case management where the staff member acts as a broker arranging services from other psychosocial agencies. This brokered approach leads to a piecemeal and uncoordinated approach to care;
- Services provided by the team include all possible interventions that help the person live independently. This includes symptom monitoring and medication management, management of entitlements, housing assistance, financial management, health promotion and activities related to daily living;
• Team members share responsibility for all consumers being served by the team. This kind of shared responsibility assures that people do not fall through the cracks. Moreover, team-based services decrease the burnout that may impact service providers;

• No time limits to services. Like supported employment, ACT teams recognize that psychiatric disabilities cause lifelong challenges. Hence, services need to be ongoing and not terminated. Moreover, services need to be available 24 h a day, 7 days a week;

• Staff-to-consumer ratios are small; approximately one staff member to ten consumers. ACT is successful because of the breadth and depth of services it provides. This comprehensive array of interventions can only be accomplished when ACT team members are not overwhelmed by responsibility for too many individuals;

• Interventions are carried out in the location most convenient for the person with mental illness. The problems with psychiatric disability occur in the person's home, workplace or community. Hence, that is where interventions are most relevant. Service providers offering more traditional approaches to case management did so in their office. Unfortunately, office appointments frequently clashed with the person's priorities such that case management sessions were often missed;

• The team is assertive in providing ACT services. Assertiveness does not mean being coercive or single-handedly addressing the goals of the person. Instead, it means trying to establish a partnership with the person so that his/her needs can be met. In providing extensive services in community settings, the ACT team member often seeks out the person with psychiatric disabilities rather than wait for him or her to contact the team member.

Family psychoeducation & support
Families of people with psychiatric disorders are impacted by the disorder [70,71]. They may be personally and financially burdened by family members with serious mental illness. Family members also play a central role in their relative's recovery from mental illness. As a result, extensive research has been performed on interventions that address the needs of family members and the person with psychiatric disability. Current evidence has supported more than a dozen principles that describe relevant family interventions [40]. Especially important principles from that list are reviewed here (and are summarized in Table 2):

• Include family members as equal partners in family interventions. Contrary to out-of-date notions that family members cause mental illness, current perspectives recognize that the family is a key participant in the rehabilitation plan for the relative with serious mental illness. Service providers now recognize this role and are attentive to family needs and concerns vis-à-vis the person's psychiatric disability. This kind of approach yields the second principle of family-based interventions;

• Be flexible in approaching the family. Recognize that the family's perceptions and attitudes regarding the relative with mental illness are dynamic phenomena such that the provider needs to be vigilant to changing needs;

• Assess family strengths and limitations in terms of supporting the relative with serious mental illness. Families differ in their abilities to help the person with psychiatric disability. There are several specific skills that make family interactions relatively more successful;

• Help the family to learn communication skills;

• Provide training in problem-solving strategies. These two principles represent the psychoeducational aspect of family care. Just as social learning strategies discussed earlier in this paper helped individuals with mental illness learn important coping skills, so these same strategies help family members to master communication and problem solving. The family is better able to deal with recurring challenges when armed with these skills;

• Help family members expand their support network. In addition to better skills, research suggests peer support can advance family goals. This kind of assistance helps relatives learn from other family members who are struggling with the same challenges. Moreover, being of help to other families can also reinforce one's approach to relatives with mental illness. Despite greater support and better skills, the person's symptoms may recur causing crises;

• The service provider should help the family, including the person with mental illness, develop a crisis plan. This kind of goal parallels relapse prevention described earlier in this paper. Plan now, while things are calm and cogent, how to handle a crisis if and when it happens again. Part of the plan is to identify cues forewarning a crisis so that the family and the relative with mental illness can respond before a full blown event occurs;

• Lastly, address feelings of loss. Mourning is a common family response to the onset of serious mental illness. Family members may experience a sense of loss because the hopes and goals of the relative with serious mental illness have been derailed. Helping family members work through loss is an important step in helping the relative with mental illness recover.

Integrated treatments for mental illness & substance abuse
Comorbidity between serious mental illness and substance abuse is the norm rather than the rarity. Research has shown that the course and outcomes of serious mental illness are significantly worsened when the person simultaneously abuses drugs or alcohol. Traditionally, problems related to substance abuse were addressed by a completely separate system from those mental health providers. Researchers maintain that this kind of artificial split undermines recovery for the person with dual disorders [41]. An integration of mental health and substance abuse disorders is the prime principle of integrated services for dual diagnoses. Six additional components have been identified as critical for competent treatments (Table 2).
**Assertive outreach**

Many people with dual diagnoses have difficulty linking with the service system. In the absence of appropriate outreach services, these individuals fall through the cracks. Assertive outreach means case managers seek their clientele where they live and hang out. Assertive outreach is also done at times that are convenient for the client, rather than 9–5 office hours.

**Motivational interventions**

Most people with dual diagnoses are either unmotivated to give up substance abuse or ambivalent about this decision. Motivational interviewing helps the person consider the costs and benefits to giving up substance abuse. Benefits are the motivators for participating in substance-abuse programs. ‘If I stop drinking so much, I will be able to see my children more often in supervised visits’. Costs are the reasons why the person is not going to participate in substance abuse treatment. They are the barriers to giving up drugs and alcohol. ‘I don’t want to stop drinking. It’s the one thing I have to look forward to’. The costs then become the focus of treatment, considering other ways personal needs can be met without becoming high.

**Social support interventions**

People with dual diagnoses who have a large support system (both family and peers) that encourages the person to be substance-free will be better able to beat their addiction. Social support is one of the most important ingredients in 12-step programs like Alcoholics Anonymous.

**Long-term perspective**

The interaction of substance abuse with mental illness is typically integrated into all parts of a person’s life, having become that way over many years. Hence, these disabilities are not going to quickly or easily resolve. Service providers need to be prepared to provide interventions over the long course.

**Comprehensive**

These disabilities also tend to address all facets of life: work, housing, all health spheres and the criminal justice system. Integrated services address all domains of life, not just substance abuse and mental health.

**Cultural competence**

Dual disabilities, and the domains of life goals impacted by them, are significantly affected by the person’s cultural background. At a minimum, service providers need to be sensitive to the cultural diversity of their clientele.

**Towards an integration of recovery perspectives**

The theoretical distinctions among the two paradigms of recovery, and their interaction with psychosocial interventions, are especially apparent when placed in the real world. Consider how different stakeholder groups might gravitate to each model. Some members of family groups and mental health providers frequently define recovery as an outcome. Important to them is the idea that their patient or family member gets better; that they somehow overcome the symptoms and disabilities that trouble them and their family or community [72]. Many consumer, survivor and expatient groups are more likely to embrace recovery as a process [19]. They have frequently experienced the outcome desires of seemingly well-intentioned family members and service providers as imposed on them, not relevant to their experience and sometimes harmful. Consumer groups are troubled by how mental illness and its treatment system are a tremendous burden – burden in the sense of lost hope and stolen goals – that they seek to overcome.

These differences are tangible when viewing various perspectives on treatment and services. Consider ACT as an example of this distinction. Most provider and family groups have endorsed this as an essential mechanism for the recovery of people with the most serious of disabilities [73,38]. The ACT team helps individuals with mental illness overcome the types of disability that get them hospitalized. In addition, regular and assertive services assist the person to remain independent in his or her community. However, consumer, survivor, and ex-patient groups, are sensitive to the loss of empowerment in some versions of ACT. Control over individually-relevant goals may be lost in such programs. As a result, an alternative to ACT called Personal Assistance in Community Existence has been proposed as a way to assist people in recovering from mental illness that is based on self-determination, respect, and noncoercion; all concepts that are central to viewing recovery as a process [74].

An even more emotionally loaded example is mandated treatments, such as out-patient commitment. Family groups and providers are often in strong disagreement with consumer and survivor groups on this issue. If recovery from medical illness is the goal where all symptoms are remitted and disabilities resolved, it makes sense to mandate services for those individuals who are not currently capable of recognizing what will cure them [75]. Conversely, coercing or in some other way requiring people to participate in treatment is antithetical to notions of empowerment and goal setting. Many consumer, survivor and expatient groups are vociferous opponents of mandated services.

Clearly, these models are diverse, potent and effective in the real world. More and more, the vision of recovery is being embraced by all facets of the mental health community.

**Research needs to continue examining the effects of these interventions as they interact with community variables.** For example, one current direction for research examines evidence-based practices as they interact with questions of ethnicity. Moreover, policy makers need to fund interventions, such as those discussed in this paper. The impact of evidence-based practices will broaden with this kind of support.

**Expert commentary**

Research should continue developing definitions and models of recovery. This research should include empirical operations that will facilitate the measurement of recovery.
Research should also develop and evaluate a broader scheme of evidence-based practices. By broader scheme, I mean psychosocial interventions that differ in mission and vision, not just practice.

Research needs to examine technology transfer strategies that generalize evidence-based practices to a broad therapeutic environment.

**Five-year review**

Research will have significantly elaborated on a model of recovery. These models will not be limited to algorithms of symptom change. Future research will also develop the processes that represent recovery. Interventions that assist the life goals of people with psychiatric disabilities will have further evolved to represent the newly identified aspects of recovery. Dissemination strategies will be in place to promote technology transfer.

**References**

Papers of special note have been highlighted as:
- of interest
- of considerable interest


- Recent review of the literature on different views on recovery.


- Classic review of the long-term research on recovery.


Psychosocial interventions and recovery


66 Review of the research literature on supported employment.


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