A scientific agenda for the concept of recovery as it applies to schizophrenia

Steven M. Silverstein a,⁎, Alan S. Bellack b

a University Behavioral HealthCare and Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, United States
b VISN 5 Mental Illness Research, Education, and Clinical Center, University of Maryland School of Medicine, United States

Abstract
Recovery is now a widely discussed concept in the field of research, treatment, and public policy regarding schizophrenia. As it has increasingly become a focus in mainstream psychiatry, however, it has also become clear both that the concept is often used in multiple ways, and that it lacks a strong scientific basis. In this review, we argue that such a scientific basis is necessary for the concept of recovery to have a significant long-term impact on the way that schizophrenia is understood and treated. The discussion focuses on key issues necessary to establish this scientific agenda, including: 1) differences in definitions of recovery and their implications for studying recovery processes and outcomes; 2) key research questions; 3) the implications of data from outcome studies for understanding what is possible for people diagnosed with schizophrenia; 4) factors that facilitate recovery processes and outcomes, and methods for studying these issues; and 5) recovery-oriented treatment, including issues raised by peer support. Additional conceptual issues that have not received sufficient attention in the literature are then noted, including the role of evidence-based practices in recovery-oriented care, recovery-oriented care for elderly people with schizophrenia, trauma treatment and trauma-informed care, and the role of hospitals in recovery-oriented treatment. Consideration of these issues may help to organize approaches to the study of recovery, and in doing so, improve the impact of recovery-based initiatives.

Keywords: Recovery Schizophrenia Treatment Outcome Remission

Contents

1. Introduction ...................................................... 1109
2. Defining recovery .................................................... 1109
3. Defining a research agenda for recovery ......................................... 1111
   3.1. Recovery as an outcome ............................................. 1111
      3.1.1. Short-term studies ............................................ 1112
      3.1.2. Long-term studies ............................................ 1112
      3.1.3. The relevance of long-term outcome studies for people currently receiving treatment in state hospitals.... 1112
   3.2. What factors promote recovery? ......................................... 1113
      3.2.1. What facilitates recovery outcomes? ................................... 1113
      3.2.2. What facilitates the recovery process? .................................. 1114
      3.2.3. Provider competencies ......................................... 1116
   3.3. What is recovery-oriented care, and how effective is it? ........................................... 1116
      3.3.1. Shared decision making ......................................... 1116
      3.3.2. Supported services ........................................... 1117

⁎ Corresponding author. Division of Schizophrenia Research, University Behavioral HealthCare, UMDNJ 151 Centennial Avenue, Piscataway, New Jersey 08854, United States. Tel./fax: +1 732 235 9293.
E-mail address: silvers1@umdnj.edu (S.M. Silverstein).

© 2008 Elsevier Ltd. All rights reserved.
doi:10.1016/j.cpr.2008.03.004
1. Introduction

With publication of the Surgeon General’s Report on Mental Health (Department of Health and Human Services, 1999) and the President’s New Freedom Commission on Mental Health’s Final Report (2003), the concept of “recovery,” which had evolved through the consumer advocacy movement since the first half of the 20th century (Frese, 1998; Tomes, 2006), became a significant consideration for treatment providers and policy makers. Recovery is now routinely a subject of presentations and publications by consumers, clinicians, administrators, researchers, and policy makers, and many states are developing plans to transform their mental health systems in accordance with recovery-oriented care, as recommended by the reports noted above and other publications. At the same time that the groundswell of advocacy for recovery-oriented care continues to increase, however, it has been noted that there is still a lack of a consensual definition of what recovery is or involves. Indeed, as Davidson, O’Connell, Tondora, Straeheli, and Evans (2005) noted, “the only thing about which most involved parties seem to be able to agree is that the notion of recovery has become the focus of a considerable amount of confusion, dialogue and debate between and among various constituencies within the mental health community” (p. 6). Davidson et al. (2005) further noted that as a result of the variety of uses of the word, recovery is in danger of becoming the latest in a line of terms that are used frequently to connote insider status in the mental health community, but without having any meaningful content or implications. Similarly, Liberman and Kopelowicz (2005) noted that lack of agreement on how to define recovery may lead to its loss of credibility as a meaningful construct, a concern also voiced by Roe, Rudnick, and Gill (2007). Jacobson and Greenly (2001) also noted that without consensual agreement on what recovery is, it is likely that currently available treatments and delivery systems will be repackaged in non-significant ways, with the claim that they are now recovery-oriented. Finally, Davidson et al. (2005) argued that the elusive nature of the concept has led to an inconsistency in the degree to which recovery principles are translated into actual practice, and the degree to which the extent that this is occurring can even be assessed. All of these scenarios imply that, despite the current enthusiasm regarding transforming mental health care in a more recovery-oriented direction, unless agreement can be reached on one or more ways to understand recovery in terms that can be measured and studied, there will ultimately be a less than desired impact on the types of settings and services that are made available to consumers of mental health services. These issues are in addition to the complex set of issues that have been raised involving implementation of a recovery model even after agreement on concepts has occurred at the local level (Davidson, O’Connell, Tondora, Styron, & Kangas, 2006).

As a remedy for this situation, Bellack (2006), Liberman and Kopelowicz (2005), and Slade and Hayward (2007) called for efforts to ground the concept of recovery in a scientific base. This would include operational definitions of recovery, reliable measurement of phenomena considered to be core features of recovery, the generation of research data on factors that facilitate or impede attainment of recovery criteria sets, and factors related to the effectiveness of recovery-oriented care. As Liberman (2002) pointed out, in addition to accelerating our understandings of recovery and of how to help people recover, such research can also help improve the differentiation of schizophrenia as a heterogeneous set of disabilities rather than a unitary disease.

In this paper, we review what we believe to be the major research questions facing the field of schizophrenia treatment with regards to the various uses of the concept of recovery. We also note the data, where available, that led us to formulate what we see as the major questions and issues. While we acknowledge at the outset that many more questions are asked than answered in this paper, our hope is that the questions asked, and the rationale behind their generation, will serve to organize research efforts on recovery so that it moves from being an often ambiguous term to one that has concrete meaning and benefit for people suffering from the effects of schizophrenia. We should also note that while our narrower focus is on schizophrenia, much of the discussion has broader applicability to people with serious mental illness in general. We have chosen to focus on schizophrenia, however, because this condition has traditionally been associated with the poorest outcomes, and because response to even recovery-oriented interventions such as supported employment is often poorest among people with this diagnosis (see below, section on interventions). Therefore, we believe it is important to raise the issues of the extent to which current discourse around recovery applies to this population, and the practical issues that a recovery orientation raises for the treatment and lives of this heterogeneous group of people.

2. Defining recovery

The concept of recovery has been defined in multiple ways. These different definitions can be roughly organized into two types: those that reflect recovery as an outcome based on whether operationally defined criteria in one or more domains are met, and those that reflect recovery as an ongoing process of identity change including a broadening of self concept wherein the role of consumer of psychiatric services becomes less pronounced. As Bellack (2006) noted, the former type of definition emerged from within the historical context of treatment research, including the search for clinically meaningful and psychometrically reliable outcome measures. In contrast, the latter type of definition emerged largely from consumer-oriented efforts that aimed to bring...
the consumer perspective into mainstream psychiatric practice and research. A major focus of this perspective is on overcoming the effects of having (including being treated for) a psychiatric condition, including poverty, stigma, demoralization, hopelessness, and social isolation.

An example of an outcome-oriented definition of recovery can be found in Liberman, Kopelowicz, Ventura, and Gutkind (2002), where the criteria consist of the following components: 1) Psychopathology — scores on the Brief Psychiatric Rating Scale (Ventura, Lukoff, Nuechterlein, Green, & Shiner, 1993) negative and positive symptom items of 4 or less (indicating mild-moderate or less severity levels); 2) Psychosocial Functioning — at least half-time engagement in work or school, independent management of one’s own finances and medications, and at least once weekly socialization with peers outside of family and treatment providers; and 3) Duration — at least 2-consecutive years of meeting criteria 1 and 2. A widely cited and seminal example of a process-oriented definition of recovery comes from Anthony (1993): “A deeply personal, unique process of changing one’s attitudes, values, feelings, goals, skills, and/or roles. It is a way of living a satisfying, hopeful, and contributing life even with limitations caused by the illness. Recovery involves the development of new meaning and purpose in one’s life as one grows beyond the catastrophic effects of mental illness” (page 15). A more recent example of a process-oriented definition is as follows: “A redefinition of one’s illness as only one aspect of a multi-dimensional sense of self capable of identifying, choosing, and pursuing, personally meaningful goals and aspirations despite continuing to suffer the effects and side effects of mental illness” (Davidson et al., 2005, page 15). The Substance Abuse and Mental Health Services Administration (SAMHSA), based on a consensus conference attended by a large and diverse group of stakeholders, proposed a multidimensional definition of recovery, as “Mental health recovery is a journey of healing and transformation enabling a person with a mental health problem to live a meaningful life in a community of his or her choice while striving to achieve his or her full potential” (SAMHSA, 2005). In this view, the 10 elements and guiding principles of recovery are: self-direction; individualized and person-centered care; empowerment; a holistic perspective; non-linear; strengths-based; access to peer support; respect; responsibility; and hope. In addition to outcome- and process-oriented definitions, discussions of recovery often attempt to distill its meaning by clarifying similarities and differences with forms of recovery in other areas of medicine (Davidson et al., 2005), and with recovery from substance abuse in particular (Ziedonis, Yanos, & Silverstein, 2007). Not surprisingly, the definition of recovery that is considered most appropriate is a function of who is defining it, including for what purposes. So, for example, researchers typically prefer to define recovery in terms of outcome criteria, whereas consumers and family members generally prefer defining it in terms of an ongoing change process (Liberman et al., 2002).

At first glance, it would appear that when recovery is defined as an outcome (even if multidimensional) it is easier to operationalize and study than when it is defined as a process. However, construct validity is not ensured simply by using reliable or well-known research measures; the issue of what are the meaningful dimensions of recovery must first be addressed, and then measures must be identified or developed to assess these dimensions. Viewed in this way, neither dichotomous outcomes nor change processes need be seen as more simple or difficult to address than the other. Moreover, to some extent, measurement of the extent to which a person is engaged in a recovery process is a type of outcome, and so the same issues of measurement apply to developing criteria for both ‘outcomes’ and ‘processes’.

Even with this optimistic perspective, however, a number of key questions regarding definitions of recovery must be addressed, including: 1) can there be a single definition of recovery that includes both process and outcome factors? 2) is such a definition necessary for research to accelerate, and does a lack of such a definition impede progress in studying recovery? 3) is, in fact, recovery most productively approached as having separate process and outcome aspects, and might not this separation allow for a clearer ability to study the effects of the process variables on outcomes, and the effects of achieving outcomes on the process? 4) what are the most meaningful dimensions to include in research studies of recovery as an outcome, especially regarding the balance of ‘objective’ indices (e.g., symptom levels, frequency of socialization; degree of independence, etc.) versus subjective factors (e.g., perceived quality of life, perception of meaning or engagement in life, sense of agency, having achieved a self-concept wherein the focus on psychiatric difficulties is reduced)? and 5) in studies of recovery as a process, what are the key intra- and inter-personal processes that should be studied?

As Bellack (2006) noted, all available scientific definitions of recovery are limited in the sense that they were determined by consensus, rather than empirically. As a result, the significance of meeting any proposed set of criteria in terms of quality of life, family or consumer satisfaction, later maintenance of subjective or objective gains, need for treatment, etc. is unknown. Similarly, consumer-oriented definitions are also limited in the sense that they are often non-specific and not framed in ways that can be used to guide research, evaluate programs, or develop public policy (Bellack, 2006). For example, concepts such as hope, empowerment, self-determination, perceptions of having begun a journey of recovery, and identity change are often used in a vague manner. In addition, although such concepts form the basis of several influential definitions of recovery, the extent to which these mental states are actually necessary for the process of recovery, whether they are outcomes of other components of the recovery process that are necessary, or the extent to which they may serve as mediating variables remains unknown (Bellack, 2006). Psychometrically adequate measures to assess proposed components of recovery have only recently been developed, and have not yet been widely used (see Campbell-Orde, Chamberlin, & Leff, 2005). Noordsy, Torrey, Mueser, Mead, O’Keeffe, and Fox (2002) reviewed scales developed outside of a recovery context that can be useful for research and program evaluation purposes [e.g., Beck Hopelessness Scale (Beck & Steer, 1988); Illness Locus of Control Scale (Schaub & Liberman, 1999); Modified Engagement Scale (McCay & Seeman, 1998)]. However, most of these have yet to actually be used in research on recovery, and the extent to which these may need to be modified for people with serious mental illness is unknown.

A further but rarely noted consideration is that widely cited consumer definitions of recovery are typically generated by people who have both life experience of mental illness and status within the professional community (e.g., they have become mental...
health professionals). However, it is not clear if the experiences of this group of people hold true for the broader population of people with schizophrenia. To the extent that the group that has recovered is a distinct good outcome subgroup, their experiences of the recovery process, and outcomes achieved, may be very different than those for people with poorer cognitive and psychosocial functioning, the deficit syndrome, and other poor prognostic factors (see also section below on long-term outcomes).

A further problem with existing definitions of recovery is that while consumer definitions often stress that the process of recovery can be occurring regardless of the presence, or degree of change of, symptoms, outcome oriented research explicitly either excludes people who continue to have symptoms, or defines them as non-recovered (Davidson et al., 2005). Therefore, there is the potential that different groups of people will be studied by researchers investigating recovery from the ‘outcome’ versus ‘process’ perspectives. All of these stresses the need for, at least, clarity in operational definitions, but ideally, for a framework for studying recovery from within which representative samples of people with schizophrenia can be included.

Finally, in addition to definitions of recovery that stress personal processes or outcomes, the concept is also discussed in terms of methods to facilitate those processes or outcomes. This can mean how treatment is delivered (including staff attitudes and treatment philosophy), which interventions are delivered, who delivers the interventions, how environmental barriers to positive outcomes can be addressed, and non-treatment activities that can facilitate the recovery process or outcome. Each of these issues has received considerable attention. For example, the issue of staff attitudes and skill sets is the subject of several lengthy reports (e.g., Onken, Dumont, Ridgway, Dornan, & Ralph, 2002; Young, Forquer, Tran, Starzynski, & Shatkin, 2000). Many of the recommendations in these reports focus on staff behaviors that have face validity regarding the concept of recovery (e.g., providing hope, reducing stigma, showing respect, cultural competence, etc.). What is less clear at this point is how to ensure that staff demonstrate these qualities, the extent to which the skills can be trained, the relationships between staff attitudes and behaviors, the extent to which these behaviors promote the various aspects of recovery, and which factors are most necessary to train to ensure presence of “good enough” treatment or peer support. Similarly, the review of recovery definitions by Onken, Craig, Ridgway, Ralph, and Cook (2007) stresses the importance of both the reestablishment of mental health, and the removal of barriers to community reintegration and inclusion that can interfere with the recovery process. The latter issue, while critical, has typically not been a focus of mental health clinicians or researchers. Therefore, much remains unknown about the effects of societal change on the recovery process and how this operates. Nevertheless, the importance of the perspectives of Onken et al. (2002, 2007) and Young et al. (2000) is that they highlight the multidimensional nature of recovery, and the types of issues that need to be better understood. The issues of which interventions are considered recovery-oriented, the use of consumers as treatment providers, and the relative contributions of interventions versus other personally rewarding activities to the recovery process will be considered in sections later in this paper.

3. Defining a research agenda for recovery

Answering the key definitional questions posed above will allow for a more productive focus on other questions relevant to recovery that are in need of further study. These research questions include: 1) how are the outcome and process aspects of recovery related, and to what extent do these relationships vary across individuals? 2) what research designs are most appropriate to study the type of long-term change implied by the process-oriented concept of recovery? 3) how does the recovery process start? 4) can we hasten its start? 5) how does the process unfold? 6) are there specific stages? 7) what factors contribute to the process: what external events/internal factors enhance it and what impedes it? 8) under what conditions are symptom exacerbations roadblocks versus opportunities to grow? 9) what is the role of natural supports, including, but not limited to the family? and 10) what is the relationship between recovery, pre-morbid expectations, and current expectations? The present state of the evidence does not allow for definitive answers to these questions. However, we believe that addressing the issues discussed in the sections below will form the building blocks for the meaningful study of these questions.

3.1. Recovery as an outcome

In addition to the efforts of consumer and family advocates, one reason why the concept of recovery has received increased attention in mainstream psychiatry is the accumulation of outcome data over the past 30+ years indicating that a significant proportion of people with schizophrenia do not have the negative outcomes that were earlier assumed to be a defining feature of the illness. This changed attitude has come from both short-term and long-term studies. For the most part, outcome has been defined in short-term studies as the outcome of treatment, although the dimensions assessed often go beyond typical treatment goals such as symptoms, to include variables such as return to school or work. In the longer-term studies, outcome is at times also defined as the effects of treatment. However, the major, but often unstated, implication of these studies is that outcome refers to the natural course of the illness as it unfolds over many years. As can be seen below, this is a naive approach to the studies, because a careful review indicates that long-term outcome — defined in the studies in terms of both psychiatric symptoms and functional status, but typically not pre-morbid variables — is significantly affected by pre-morbid traits, illness severity, the environment in which the person lives, and availability of treatment services. Despite this caveat, all of the outcome studies reviewed are revealing because their results challenge the original view of schizophrenia as an inevitably deteriorating condition, and also the more modern view that, even if the original view is inaccurate, most people with the disorder cannot improve. The critical task, from a research perspective, is to identify what factors affect outcomes, and then to study the effects of new or existing interventions targeted at these rate-limiting factors, to determine if positive outcomes can be obtained for a greater number of people.
3.1. Short-term studies

While the early, short-term course of schizophrenia is often negative, many poor outcomes are the result of non-adherence with treatment or co-morbid substance abuse. For example, Gitlin et al. (2001) demonstrated that among young people with schizophrenia who stopped taking their medication, over 70% relapsed in the first year, and over 90% by two years. Maslin (2003) demonstrated that using drugs or alcohol nearly doubled the rate of relapse over 1–2 years in schizophrenia. With adequate treatment, however, short-term outcomes can be much more positive. For example, in a study of people with first-episode schizophrenia who were enrolled into a standardized treatment (medication) algorithm study, 74% achieved full symptom remission within 1-year (Loebel, Lieberman, Alvir, Mayerhoff, Geisler, & Szymanski, 1992). At another specialized clinic for young people with psychosis in Melbourne, Australia, 91% of young people with recent onset of psychosis were in relatively complete remission of symptoms after 1-year of assertive community treatment (ACT), medication, and cognitive behavior therapy (CBT) (Edwards, Maude, McGorry, Harrigan, & Cocks, 1998). A study at the UCLA Aftercare Clinic demonstrated that 80% of people with recent onset schizophrenia who stayed in treatment achieved remission of symptoms within the first year (Gitlin et al., 2001). In a similar study from Nova Scotia, 83% of people recovering from a first-episode of schizophrenia were not rehospitalized within the first year, and more than half of the 83% were involved in full or part-time work or education (Whitehorn, Richard, & Kopala, 2004). These data suggest that with optimal treatment, the majority of young people with schizophrenia can achieve significant or full symptom remission within a year after the first-episode, in addition to a return to age-appropriate role functioning. Important questions, therefore, are how to reduce substance abuse and increase treatment involvement so as to maximize short-term recovery.

3.1.1. Short-term studies

While the early, short-term course of schizophrenia is often negative, many poor outcomes are the result of non-adherence with treatment or co-morbid substance abuse. For example, Gitlin et al. (2001) demonstrated that among young people with schizophrenia who stopped taking their medication, over 70% relapsed in the first year, and over 90% by two years. Maslin (2003) demonstrated that using drugs or alcohol nearly doubled the rate of relapse over 1–2 years in schizophrenia. With adequate treatment, however, short-term outcomes can be much more positive. For example, in a study of people with first-episode schizophrenia who were enrolled into a standardized treatment (medication) algorithm study, 74% achieved full symptom remission within 1-year (Loebel, Lieberman, Alvir, Mayerhoff, Geisler, & Szymanski, 1992). At another specialized clinic for young people with psychosis in Melbourne, Australia, 91% of young people with recent onset of psychosis were in relatively complete remission of symptoms after 1-year of assertive community treatment (ACT), medication, and cognitive behavior therapy (CBT) (Edwards, Maude, McGorry, Harrigan, & Cocks, 1998). A study at the UCLA Aftercare Clinic demonstrated that 80% of people with recent onset schizophrenia who stayed in treatment achieved remission of symptoms within the first year (Gitlin et al., 2001). In a similar study from Nova Scotia, 83% of people recovering from a first-episode of schizophrenia were not rehospitalized within the first year, and more than half of the 83% were involved in full or part-time work or education (Whitehorn, Richard, & Kopala, 2004). These data suggest that with optimal treatment, the majority of young people with schizophrenia can achieve significant or full symptom remission within a year after the first-episode, in addition to a return to age-appropriate role functioning. Important questions, therefore, are how to reduce substance abuse and increase treatment involvement so as to maximize short-term recovery.

3.1.2. Long-term studies

Since the 1970s, long-term (e.g., 15–25 years) follow-up studies of schizophrenia have consistently indicated that approximately 25% of people given that diagnosis can be considered fully recovered during the follow-up period, with another 25–45% achieving significant improvement, including relatively independent role functioning (e.g., Bleuler, 1978; Ciompi, 1980; DeSisto, Harding, McCormick, Ashikaga, & Brooks, 1995a,b; Harding, Brooks, Ashikaga, Strauss, & Breier, 1987; Huber, Gross, & Schuttler, 1975; Huber, Gross, Schuttler, & Linz, 1980; Ogawa, Miya, Watarai, Nakazawa, Yuasa, & Utena, 1987; Tsuang, Woolson, & Fleming, 1979). Similar results were obtained in briefer follow-up studies in developing countries (Jablensky et al., 1992; Sartorius, Jablensky, & Shapiro, 1977). In addition, these data are consistent with findings that people diagnosed with schizophrenia, who have spent years in state hospitals and are considered treatment refractory, can be discharged to live back in the community after receiving intensive social-learning based inpatient services (Corrigan & Liberman, 1994; Paul & Lentz, 1977; Silverstein Spaulding & Menditto, 2006). Taken together, what these data demonstrate is that even among people who are hospitalized for many years, continued institutionalization is often more a function of the lack of availability of evidence-based treatments and/or other supportive environments than a necessary consequence of schizophrenia.

In a recently published study with somewhat different conclusions, Harrow, Grossman, Jobe, and Herbener (2005) reported on a 15-year follow-up study of people with major mental illness. In this ongoing project, people are re-assessed every three years. Forty one percent of people with schizophrenia were considered to meet outcome criteria for recovery on at least one follow-up assessment, but few patients could be considered recovered at multiple assessment points. Moreover, recovery rates for the schizophrenia group were lower than for people with other psychotic disorders. Also, factors such as anxiety and the presence of positive and negative symptoms were negatively related to functional status (Harrow, Grossman, Jobe, & Faull, 2006). Similar to the Harding et al. (1987) study, 40% of people with schizophrenia that met recovery criteria at the 15 year follow up were not taking medication. Unlike with younger samples where this is seen as treatment non-adherence and associated with poorer outcomes, people in the Harrow et al. study not taking medication for psychosis had among the best outcomes, and no longer felt a need to be treated for a psychiatric condition. Overall, data from the Harrow et al. (2005) study replicate past findings that outcomes, at least measured cross-sectionally, can often be relatively positive. However, these data also indicate that most people have episodic courses, and that extent of recovery, at least when defined in terms of functional outcome, is inversely related to the presence of illness characteristics, which persist for many people. This highlights the need for further research into relationships between signs and symptoms of schizophrenia on the one hand, and recovery outcomes and processes on the other. The data also suggest a need for the increased use of time-series analysis, growth curve modeling, and other statistical techniques that can capture individual variability in change across time.

3.1.3. The relevance of long-term outcome studies for people currently receiving treatment in state hospitals

An infrequently raised, but important concern about the long-term outcome studies cited above is the extent to which their implications for the concept of recovery apply to people currently in state psychiatric hospitals. This is an important issue because: 1) many state hospitals are motivated, or under pressure, to transform their services and staff to be recovery-oriented, in part based on the data from long-term outcome studies; but 2) the data on recovery outcomes cited above may not be directly applicable to the majority of people currently remaining in state hospitals. In the 1950s (when many of the cohorts of the older studies were identified), the level of disability required for a long-term hospital stay was much lower than it is today. Relatedly, the drastic census reductions in state psychiatric hospitals since the 1950s (Talbott, 2004), means that those people remaining in these settings today are likely to represent the more severely disabled end of the continuum, and may in effect be similar to that group of people who did not recover in the studies examining people hospitalized in the 1950s. It may thus be misleading to approach current long-stay hospital residents with the idea that, for example, 50% are likely to achieve adequate community functioning over the long-term (as was the case in the Harding et al. and other studies that sampled from people in state hospitals in the 1950s).
Evidence consistent with the longitudinal studies comes from the studies of Paul and Lentz (1977), Silverstein et al. (2006) and others indicating that the majority of people considered treatment refractory in state hospitals can be discharged to more independent settings. However, it remains to be seen whether this group of people can achieve the outcomes, in terms of role functioning, noted in the earlier longitudinal studies, and what personal and environmental factors (including availability of comprehensive treatment and housing opportunities) are involved in determining the extent of outcomes achieved.

The question of whether the data from prior long-term outcome studies applies to people currently in state hospitals is especially relevant for the elderly population of inpatients with schizophrenia. This is because people in this group typically have long histories of severe disability, and recent data on outcomes among elderly people with a lifetime of schizophrenia-related disability suggest that a history of poor functioning is strongly predictive of continued disability and even decline in functioning. Schimming and Harvey (2004) recently reviewed research in this area, and presented sobering conclusions with regard to positive symptoms, negative symptoms, cognitive impairment, and overall functioning. Regarding positive symptoms, although some studies showed a decrease in severity of positive symptoms between ages 25 and 95, inpatients aged 75 and older still had severe positive symptoms. Symptom levels in people over 75 who received treatment were not different from younger people with a chronic course of illness. Among the 75 and older population, symptom levels were the same among people being treated for an acute psychotic episode as they were among people receiving long-term residential treatment in a psychiatric facility (Schimming & Harvey, 2004).

Similarly, while people with good outcomes often experience a reduction of negative symptoms over time, people with a lifetime history of poor functional outcome typically demonstrate a worsening of negative symptoms over time. Also, evidence indicates that while older, higher-functioning people with schizophrenia do not appear to experience an age-related decline in cognitive functioning, elderly people with schizophrenia with poor functional outcomes, including long-term institutionalization, appear to experience gradual declines in cognitive functioning over time. Cognitive test scores in chronically institutionalized people with schizophrenia have been found to be similar in different countries, and in different settings (e.g., hospitals, nursing homes, etc.). Indeed, studies of people with SMI in nursing homes have demonstrated MMSE scores that are within the severely demented range (e.g., Bartels, Mueser, & Miles, 1997). What all of these data indicate is that, in the current climate of census reduction and community-based treatment, people who remain for extended stays in state hospitals, especially the population of these people that is 75 or older, are likely to experience a decline in functioning due to increasing negative symptoms and cognitive impairment.

Questions relevant to the current cohort of long-stay state-hospital schizophrenia patients therefore include: what are the maximal outcomes possible for this group, what interventions can help facilitate these outcomes, and to what extent can treatments grounded in the philosophy of recovery (including peer-delivered interventions) assist in improving outcomes? Beyond a strict focus on outcomes, and from a recovery perspective, issues of choice (in terms of daily activities, treatments, meals, room décor), and conveying respect and dignity may improve quality of life and subjective experience even if long-term treatment outcomes (as traditionally defined) remain poor. This is an important distinction, because to the extent that it is recognized that some people with schizophrenia may not recover in the traditional medical/scientific sense, there are still grounds for working with this population in a recovery-oriented, rather than custodial, manner. As Davidson and Roe (2007) noted, for those people who will not achieve recovery, if this is defined in terms of remission of symptoms and behavioral difficulties, the concept of being “in recovery” is useful, because the goals of self-determination and the fullest life possible are still relevant. In addition to this useful distinction, it should be noted that efforts to introduce recovery-oriented care into state hospitals are underway (Smith & Bartholomew, 2006; Swarbrick & Brice, 2006; Zubritsky, Mullahy, Allen, & Alfano, 2006), although the effects of these efforts on outcomes are as yet unknown.

### 3.2. What factors promote recovery?

#### 3.2.1. What facilitates recovery outcomes?

Research is now beginning on individual factors that are associated with recovery, defined as an outcome (e.g., Torgalsbaen, 1999). Kopelowicz, Liberman, Ventura, Zarate, & Mintz (2005) and Liberman et al. (2002) identified several such factors based on a literature review, and these are listed in Table 1. Ongoing studies are now examining the extent to which these factors are related to standardized operational definitions of recovery. What is less clear is whether these factors are related to the recovery process, the

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient factors associated with good recovery (from Kopelowicz et al., 2005 and Liberman et al., 2002)</td>
</tr>
<tr>
<td>Supportive family or other caregivers who support incremental progress and provide realistic expectations</td>
</tr>
<tr>
<td>Absence of substance abuse</td>
</tr>
<tr>
<td>Shorter duration of untreated psychosis</td>
</tr>
<tr>
<td>Good initial response to neuroleptics</td>
</tr>
<tr>
<td>Adherence to treatment</td>
</tr>
<tr>
<td>Supportive therapy with a collaborative therapeutic alliance</td>
</tr>
<tr>
<td>Relatively preserved executive functioning, verbal fluency, and verbal memory abilities</td>
</tr>
<tr>
<td>Absence of the deficit syndrome</td>
</tr>
<tr>
<td>Good premorbid history</td>
</tr>
<tr>
<td>Access to comprehensive, coordinated, and continuous treatment</td>
</tr>
</tbody>
</table>
extent to which people with these characteristics are more likely to experience themselves as engaging in a recovery process, and whether these prognostic factors are related to the degree of recovery-oriented personal transformation that can be achieved. Of course, to answer questions such as these, reliable and valid measures of commitment to the recovery process and the effects of this commitment must be developed.

3.2.2. What facilitates the recovery process?

Little work has been done on consumer perspectives about the mechanisms or factors involved in the recovery process, although these perspectives are critical to a fuller understanding of recovery. Roe (2001) identified several themes that were frequent in consumer narratives about their own change over time. One theme was the importance of the role and meaning of work. Work was viewed as a context to practice adjustment, a setting for providing social contacts, an avenue for generating a more functional sense of self (in contrast, not working reflected and reinforced a sense of shame, helplessness, and lack of agency), an activity that fostered a diminishment of symptoms, an activity that generated purpose and meaning in one’s life, and that provided a source of money and material survival. A second theme involved expectations and attitudes towards treatment, especially a desire to eliminate symptoms, to gain an understanding and a sense of control over the illness, and to restore aspects of premorbid functioning. The third and fourth themes were a desire for more relationships and the elimination of obstacles in establishing and maintaining satisfying relationships. These obstacles include symptoms, poor boundaries, feelings of shame, feeling that one has nothing to offer, not trusting one’s own judgment, stigma, and rejection. The data from the Roe (2001) study indicate the importance of initiatives such as supported employment (Mueser, Clark et al., 2004), recovery-oriented care with its focus on empowerment (Deegan, 1997), and supported socialization (Davidson et al., 2004), or other methods to encourage independent seeking of work, wellness, and interpersonal relationships.

Self-esteem also appears to be an important factor involved in recovery (Kupper & Hoffman, 2000). Roe (2003) found that change in self-esteem between hospital discharge and 1-year follow-up significantly predicted scores on the Brief Psychiatric Rating Scale, the Global Assessment Scale, and the Strauss–Carpenter Outcome Scale (measuring frequency and quality of social relations, quality and quantity of work, duration of time outside hospital, and level of symptoms). He therefore concluded that “sustaining esteem despite the illness should become an important goal of treatment, and the impact of interventions on consumers’ esteem should be considered and evaluated...An extremely passive, dependent, and compliant person receiving treatment who has low self-esteem and few symptoms may not necessarily have a better course of recovery than a more symptomatic treatment consumer who sustains hope, goals, sense of purpose, and self-esteem.” (Roe, 2003, p. 47). It is important to note, however, that research indicates that interventions designed to directly improve self-esteem in the absence of fostering behavior change are generally not successful (Baumeister, Campbell, Krueger, & Vohs, 2003; Swann, Chang-Schneider, & McClarty, 2007). Rather, current thinking is that self-esteem, self-efficacy, as well as hope and empowerment are largely consequences of changes and improvements in behavior and personal effectiveness (Baumeister et al., 2003; Kopelowicz, Liberman, & Zarate, 2006; Silverstein et al., 2006), although attending to self-esteem during this process is important (Swann et al., 2007). This stresses the need to incorporate direct behavior change methods and positive reinforcement for change efforts and achievements into recovery initiatives.

Related to self-esteem is the concept of self-efficacy. Silverstein et al. (2006) proposed that improvement in self-efficacy may mediate response to behavioral interventions, and research indicates that it is related to the use of more adaptive coping responses in people with schizophrenia (Ventura, Nuechterlein, Subotnick, Green, & Gitlin, 2004). As with self-esteem, it will be important to determine the effects of various interventions and experiences on self-efficacy for specific behaviors, and the degree to which changes in self-efficacy mediate other recovery outcomes. Another possibility is that pre-existing levels of factors such as self-esteem and self-efficacy moderate the effects of treatment and positive or negative life experiences. A third possibility is that the process of recovery involves other mechanisms, with self-esteem and self-efficacy being markers of the extent of recovery.

Recent research is clarifying the relationships between variables such as self-esteem and clinical features such as positive and negative symptoms. For example, Wickett et al. (2006) found that higher levels of both positive and negative symptoms were associated with a more avoidant coping style, and Vauth, Klein, Wirtz, and Corrigan (2007) found that an avoidant coping style was associated with anticipatory stigma which erodes self-efficacy and feelings of empowerment. These data indicate that, although current thinking is that the recovery process occurs independent of symptom level, there are important relationships between symptom severity and recovery process variables.

The last point was demonstrated clearly in a study by Resnick, Rosenheck, and Lehman (2004). This study demonstrated that severity of psychiatric symptoms was inversely correlated with being characterized by a recovery orientation, and that use of standard psychiatric services was positively correlated with a recovery orientation. These data suggest that receiving treatment, even for traditional medical model targets such as symptoms, plays an important role in the extent to which consumers subscribe to recovery values. As Resnick et al. (2004) suggested, these data indicate that pitting medical model services and concepts related to recovery as being diametrically opposed, as is sometimes the case in consumer advocate presentations (e.g., Swarbrick, 2006), may not be scientifically valid. Of course, traditional medical model care (as with any form of treatment) may often be delivered in ways that are experienced as negative, demeaning, or demoralizing to consumers, and this is likely to lead to poorer treatment outcomes and certainly to consumer dissatisfaction. Therefore, an important goal of future research is to determine how symptom reduction and other ‘medical model’ treatment can most effectively be delivered within the context of the values of a recovery orientation. Relatedly, clarifying the relationships between aspects of disability and subjective beliefs about one’s recovery may help promote synergy between more traditional forms of treatment and recovery-oriented initiatives.
An unexplored research area is the extent to which generating, refining, and sharing personal recovery stories/narratives is a core feature of the self-transformation process. Self-transformation signifies the creation of a new vision of oneself. Recovery stories can be seen as a form of autobiographical narrative or personal myth. Creating a personal myth involves creating a story about oneself as a temporal being that has a past, and relating the present to this past in order to form a perspective of the future (Popp-Baier, 2001). A decisive change in the life of the narrator is a key theme in such stories. For many schizophrenia patients, the adoption (and nurturing through behavior and the support of others) of a recovery perspective can be seen as such a decisive change. The reconstruction of one’s life narrative has been previously noted as a mechanism operative in psychotherapy (Shaw, 2000), and the adoption of new religious beliefs (Silverstein, 1988), and this is now seen as a critical factor in the recovery process in SMI as well (Roe & Davidson, 2005). Recently, Lysaker and colleagues have developed a research program on narrative transformation as it relates to recovery in schizophrenia. This work includes methods for rating narratives in terms of content and themes (Lysaker, Lancaster, & Lysaker, 2003; Lysaker et al., 2006). Key findings from the initial studies and clinical reports indicate that: 1) schizophrenia is characterized by a reduction in internal dialogue between different aspects of the self (Lysaker & Herman, 2007); 2) life narratives of people with schizophrenia often fail to attribute a sense of agency to the person (Lysaker, Wickett, Wilke, & Lysaker, 2003); 3) the effects of psychotherapy include increased complexity and dynamism within the narratives of people with schizophrenia, but not the creation of a radically new story or an “awakening” of an “old” self (Lysaker, Lancaster, 2003); 4) more developed life narratives are associated with higher scores on measures of self-esteem and readiness to change (Lysaker et al., 2006); and 5) impoverished narratives may be due, in part, to cognitive impairment (Lysaker, Buck, Taylor, & Roe, 2008; Lysaker, Dimaggio, Buck, Carcione, & Nicolb, 2007; Lysaker, France, Hunter, & Davis, 2005). Examining whether people who achieve improvements in functional status, or a subjective sense of moving towards recovery, are characterized by changes in internal dialogue, sense of agency, and narrative complexity are important future goals for research on recovery.

In addition to the content of recovery-oriented narratives, the frequency of engaging in recovery-oriented discourse, and the extent to which this new perspective is perceived as ego-syntonic may be important variables. Engaging in discussion about one’s recovery can be seen as an important component of the recovery process itself because such speech acts signify personal involvement in, and a deepening commitment to, the recovery process. In other words, recovery-oriented discourse can establish links between recovery concepts and individual experience, and can become the new frame of reference from which new ideas and feelings about the self can emerge and be enacted. In this way, the recovery narrative constitutes the self-transformation of the narrator, as recovery-oriented meanings are attributed to ongoing experiences. While these ideas are speculative, they are rooted in the study of personal change in other domains such as psychotherapy and religiosity, as noted above. In order to validate these ideas regarding recovery, however, it will be important to utilize psychometrically sound measures for analysis of personal narratives of people with mental illness. It may also be useful to embed such research within the context of stage models of recovery from mental illness (e.g., Andresen, Oades, & Caputi, 2003). Such models can be heuristically useful in guiding research, and in generating hypotheses about changes in self-experience and narrative development, although to date little data exist on the validity of these models. Finally, an important question in the study of personal transformation is the extent to which the self-transformation is elaborated and sustained by interactions with others with similar views (including, in the case of recovery, through peer-support and work with recovery-oriented mental health professionals), as suggested by Popp-Baier (2001).

Study of the creation and effects of recovery-oriented narratives can benefit from cognitive data on memory organization. For example, research into how memory is structured, particularly story-based memory, suggests that narratives aid us when it comes to remembering and making meaning of what happened in the past (Ekstrom, 2002). It has been suggested that much of what is needed to manage daily living is remembered in stories, and that creating stories is the most efficient way to remember a large number of events (Schank, 1990). According to Schank (1990), we need to tell someone else a story that describes our experience, because the process of creating the story also creates the memory structure that will contain the gist of the story for the rest of our lives...Telling a story isn’t rehearsal, it is creation.” (Schank, 1990, p. 155). Story creation thus can give coherence to experience, and may help to facilitate the development of a new, more embodied, sense of self. In short, we propose that a successful recovery process depends on the creation of a reconstructed personal narrative in which many events over a long period of time are integrated, past and current events are re-interpreted within the new framework of the journey of recovery (e.g., taking small steps towards more adaptive functioning or improved quality of life is experienced positively as evidence of moving forward, and not of illness-related limitations), and this framework is strengthened by ongoing dialogue with others who support this new vision. It may be useful in this regard for recovery-oriented practitioners and researchers to become familiar with concepts from the growing field of positive psychology (Seligman, Linley, & Joseph, 2004), especially the emphasis on incorporating successful views of personal experiences into a person’s self-image. An interesting possibility is that the learned optimism versus learned helplessness distinction will turn out to be as important for recovery from a psychiatric condition as it is from neurological conditions such as brain injury (Ylvisaker & Feeney, 2002).

As noted above, many consumer generated discussions of recovery focus on issues such as hope and empowerment (Mead & Copeland, 2000). These concepts therefore deserve to be studied, so that we understand how to facilitate these states, and also, the extent to which they are causes, mediators, or consequences of the recovery process (Bellack, 2006). In developing measures of these constructs that are appropriate for studies of recovery from schizophrenia, it will be important to note the overlap with other constructs such as self-esteem and self-efficacy, which are already being studied in this population. As noted above, self-esteem, hope, and other positive mental states are thought to result from behavior change, and thus these states may be fostered by involvement in effective psychosocial rehabilitation, in addition to other non-treatment experiences.
3.2.3. Provider competencies

Recently, there has been increased attention to staff skills sets and attitudes that are associated with both consumer recovery (defined as an outcome) and adoption of a recovery-orientation (e.g., Styron, Shaw, McDuffie, & Hoge, 2005). For example, a report by the Center for Mental Health Services (Coursey et al., 2000a,b) identified 11 core competencies for the effective treatment and rehabilitation of people with serious mental illness. These are listed in Table 2. Each of the competencies listed in Table 2 is further broken down into criterion-based components. The publication of these and similar recommendations is an important step in the ability of agencies to assess the extent to which their systems and staff are oriented to achieve optimal consumer outcomes. However, it is not yet known whether improvements on these measures are associated with improved outcomes, or scores on process measures of recovery, because these recommendations were largely based on consensus and not on data regarding the actual contribution of specific staff behaviors to recovery. Examining these questions should be a next step in research using recovery assessments.

In addition to specific technical skills, criteria are now being developed for staff in terms of their ability to establish and maintain effective communication, reciprocal and appropriate self-disclosure, and a mutually respectful partnership in treatment (Liberman, 2005). For example, operational criteria sets have been developed for respect and communication (Summers & Barber, 2003). Such micro-level efforts are necessary if the field is to better understand the professional and peer behaviors that facilitate recovery. The question of whether a recovery model of care is simply a kinder, more respectful way to provide services, or whether it actually contributes to outcomes or the recovery process is one of the critical questions the field must address. Identification of which behaviors lead to the consumer experience of facilitation of hope, respect, dignity, etc. will allow for the development of methods to train staff in their expression.

More research is also needed on the ingredients of successful training programs in recovery. There has been some research on short-term effectiveness of training programs (e.g., Crowe, Deane, Oades, Caputi, & Morland, 2006), but the long-term effectiveness of staff transformation efforts is still not known. The extent to which implementation of a recovery-oriented treatment system is possible within the current context of managed care restrictions is also not known.

3.3. What is recovery-oriented care, and how effective is it?

Recovery-oriented care in psychiatry can be seen as one example of a transformation in the way that health care is delivered, or that it is conceived of as potentially being delivered. In medicine in general, an approach known as relationship-centered care (RCC) has been gaining increasing acceptance (Suchman, 2006). RCC, as does the concept of recovery, stresses partnership, shared-decision making, and attention to the client–practitioner relationship and the client’s perspectives and goals for treatment. Care delivered from within this model has been shown to be effective in the treatment of type 2 diabetes, on both behavioral and biological measures (Pruksaritanond, Tubtimtes, Asavanich, & Tiewtranon, 2004).

According to Davidson et al. (2005), recovery-oriented care for people with SMI involves a new vision and goal of care, guided by 2 key issues: a) what is possible for people with serious mental illness is much different than what was thought years ago (based on outcome data cited above and similar studies); and b) that the person in treatment should have the greatest role possible in collaborating with the provider to define the goals of treatment and plan for ways to reach these goals. According to Davidson and colleagues, the main question guiding recovery-oriented treatment should be: “what combination of treatment and supports is required for this person to participate fully in community life?” This echoes Paul’s (1969) “ultimate” question: “What treatment, by whom, is most effective for this individual with that specific problem, and under which set of circumstances?” (Paul, 1969, p. 44). But, in the context of a recovery orientation, the term “treatment” can be replaced by “experiences” which includes those beyond traditionally defined treatment, to include peer support, family relationships, wellness activities, self-help, etc. Below, we focus on key areas that are foci of recovery-oriented intervention development.

3.3.1. Shared decision making

As noted above, a key concept of RCC, and recovery-oriented care, is that decisions are made based on careful consideration of both consumer and provider perspectives. The goals of shared decision making are to promote consumer choice, self-determination, and empowerment. Shared decision making can be a part of any aspect of treatment planning. Deegan and colleagues (e.g., Deegan, 2007;
Deegan & Drake, 2006) have developed methods to promote shared-decision making in the area of medication management. This represents a major shift away from viewing adherence to prescribed medication solely on the continuum of compliance–non-compliance. The program includes a peer-run decision support center and a computer program to support both providers and consumers in their shared efforts.

3.3.2. Supported services

A hallmark of recovery-oriented care is that the consumer’s choices and life goals drive the direction of treatment. This has led to the development of supported services, or those which aim to place consumers in settings of their choice, and then provide whatever supports are necessary for pursuing and achieving personal goals. Studies of supported services have often demonstrated outcomes that are superior to those from traditional services. However, at this point in time, many people, especially those with schizophrenia, do not appear to benefit significantly from supported services (see below). Therefore, finding ways to identify who can benefit from currently available supported services, developing better alternative treatments for people who do not respond to them, and identifying methods to refine supported services so that they benefit a wider range of clients, are all important directions for future research.

As an example, compared to more traditional forms of vocational and pre-vocational training, supported employment typically leads to superior outcomes. However, being placed in a job is not the same as succeeding at the job. Even in the most successful demonstrations of supported employment, the percentage of consumers who could eventually work over 20 h/week is low (e.g., 33.8% in the large Hartford SE study; Mueser, Salyer et al., 2004), the average weeks worked per job is low (e.g., 20 over a 2 year period), the average amount earned is low (e.g., $2078 over 2 years), and half of the people who obtain jobs have lost them by 6-months after job placement. Moreover, studies of SE typically include people with different diagnoses, and only about 25% of people in SE studies are diagnosed with schizophrenia, therefore limiting the generalizability of SE findings to this population (Liberman, in press). It should also be noted that less than 50% of people with serious mental illness elect to participate in SE (Wallace & Liberman, 2004). In addition, there is conflicting evidence on whether participation in SE improves non-vocational outcomes such as self-esteem, mood, or quality of life. While negative findings on this issue have been reported (Liberman, 2006; Wallace & Liberman, 2004), positive findings exist from a large study specifically designed to address the issue (Bond et al., 2001). Taken together, the literature on supported employment for people with schizophrenia raises the following questions: 1) what individual difference variables, work setting variables, work frequency, and their interactions determine the psychological effects of work? 2) is there a lower limit to the number of hours that must be worked before benefits are apparent? 3) what individual difference variables determine the upper limit of work frequency beyond which work begins to be experienced as not beneficial, and in what ways?

Recent work has identified several barriers to effective engagement in SE services, including: low educational attainment (suggesting the need for supported education services), cognitive impairment (suggesting the need for cognitive rehabilitation or the teaching of cognitive strategies that can improve work performance; McGurk & Mueser, 2006; McGurk, Mueser, Feldman, Wolfe, & Pascaris, 2007), depression and lack of confidence regarding entering the workforce, low productivity and high absenteeism associated with serious mental disorders, financial disincentives to earning an income (e.g., loss of disability benefits), and poverty level income. In addition, a recent study (Macias et al., 2006) demonstrated that Assertive Community Treatment and clubhouses that adopted an employment focus achieved vocational outcomes that were equivalent or superior to those obtained from prior large studies of SE. Given the need to attend to a range of clinical issues among consumers in SE (e.g., symptoms, cognitive impairment, educational gaps, etc.), these data suggest that integrating SE services within effective psychiatric rehabilitation services is critical (see Corrigan & Liberman, 1994; Drake & Bellack, 2003; Liberman, in press; Liberman, in press; Liberman, Kopelowicz, & Silverstein, 2005; Silverstein, 2000; Silverstein et al., 2006; Wallace, Liberman, Kopelowicz, & Yeager, 2000 for reviews of best practices in psychiatric rehabilitation; and Wallace & Liberman, 2004 for an example of combining SE with work-oriented skills training). To date, however, there have been few studies of the effectiveness of this type of integration or about variables that predict type and extent of service use and outcomes.

3.3.3. Supported cognition

It is now well known that problems with cognitive functioning in people with schizophrenia are significantly related to a number of outcomes, including skills training, and work and community functioning (Green, 1996; Green, Kern, Braff, & Mintz, 2000). Cognitive impairment has also been found to predict poorer recovery, defined either by operational criteria (Kopelowicz et al., 2005; Smith et al., 2004) or subjective relationship to illness (Bell & Zito, 2005). Moreover, it is becoming clear that even among recovery-oriented interventions that provide assistance towards meeting personally defined goals, such as supported employment, cognitive impairment can limit engagement and outcome (McGurk & Mueser, 2006). On the other hand, McGurk and Mueser (2006) found that counselors who attempted to address cognitive impediments had a greater percentage of clients who were employed, which may reflect the training of compensatory cognitive skills. In addition, McGurk et al. (2007) found that combining cognitive training with supported employment for people who had not succeeded in an earlier supported employment trial was beneficial. This demonstration suggests that further research is now needed on the development of specific methods to improve people’s ability to overcome cognitive barriers to effective performance, both in and outside of work settings. What is needed is the development of interventions that assist people in functioning in situations that are important to them (as defined by them), and a determination of whether such efforts at supported cognition (Silverstein et al., 2006; Ylvisaker & Feeney, 1996) demonstrate superior outcomes to the gains from traditional, clinic-based cognitive rehabilitation efforts (reviewed in Silverstein & Wilkniss, 2004; Twamley, Jeste, & Bellack, 2003). Such an approach is consistent with evidence from the fields of behavioral
treatment, social skills training, academic intervention, and cognitive rehabilitation of people with brain injury, on training and transfer of behavioral and cognitive skills. These data suggest that interventions are effective to the extent that they are embedded within activities and settings that are meaningful to the person receiving them (reviewed in Ylvisaker, Jacobs, & Feeney, 2003), and has led to an increased emphasis on supported cognition interventions that integrate neuropsychological and behavioral approaches (Cicerone et al., 2000; Feeney & Ylvisaker, 2003). Even among people who are often poorly motivated to engage in rehabilitation interventions such as skills training, efforts to overcome cognitive barriers in the treatment situation have met with success (Silverstein, Menditto, & Stuve, 2001; Silverstein et al., 2005; Silverstein et al., in press).

3.3.4. Peer support

Although generally lacking an evidence base to date, peer support or peer-delivered services are viewed by many consumers as being a cornerstone of recovery-oriented care (Davidson et al., 2006). Peer support can be defined as social emotional support, frequently coupled with instrumental support (e.g., material goods and services) that is mutually offered or provided by persons having a mental health condition to others sharing a similar mental health condition to bring about a desired social or personal change (Solomon, 2004). Peer support is viewed as a system of giving and receiving help founded on the key principles of respect, shared responsibility, and mutual agreement of what is helpful (Solomon, 2004). This can take many forms, including peer advocacy on state hospital inpatient units, peer led individual and group counseling sessions across the continuum of care, self-help groups, Internet-based support groups, clubhouses run by consumers, and peer-run employment or peer partnerships with existing business entities (Armstrong, Korba, & Emard, 1995; Roberts et al., 1999).

One form of peer support that has developed standards for training leaders is known as Wellness Recovery Action Planning (WRAP) (Copeland, 2002). WRAP groups involve peer support, and the development of an individualized set of behaviors and strategies to maximize functioning, which are known as toolboxes to maintain wellness. These toolboxes include daily maintenance activities to maintain wellness, promote knowledge and assessment of personal stress triggers, facilitate assessment of early warning signs of relapse, and develop an intensive crisis plan, including advance directives. WRAP groups are becoming increasingly popular, but this intervention is in need of controlled trials to determine its effectiveness, and possible differential effectiveness for consumers with different life experiences, diagnoses, clinical features, and levels of disability.

A general issue for the trend towards peer counseling is its underlying rationale that developing a helping relationship with someone who has gone through the same experiences (but achieved some degree of recovery and is motivated to serve as recovery guide) can be therapeutic. While preliminary evidence suggests that peer counselors may be superior to professional case managers in facilitating treatment engagement early in treatment (Sells, Davidson, Jewell, Falzer, & Rowe, 2006), it is generally not known what the key ingredients are in determining whether and how a peer counselor is helpful, especially over the long-term. For example, what are the relative positive or negative contributions of having been given the same diagnosis, or having the same symptoms, or life experiences? To the extent that shared illness or disability characteristics are important, this poses a problem for helping people in long-term hospital care, because the peer counselors are likely, but not necessarily, to be those with good premorbid and good prognosis characteristics (e.g., better social skills, fewer negative symptoms, a mood rather than a psychotic disorder), whereas people in long-term care are likely to have poor premorbid functioning, and more negative symptoms, psychotic disorders, and other clinical features not shared by the peer counselor. Even for consumers living in the community and receiving outpatient care, the issues of: a) desire for peer counseling; b) consumer characteristics, peer counselor characteristics, and counselor-consumer match (and which variables are most important for matching); and c) frequency of peer-delivered services are largely unanswered questions. The importance of better understanding these issues is highlighted by evidence from self-help groups which suggests that the fit between a person and the other group members is an important moderating factor in determining group attendance (Luke, Roberts, & Rappaport, 1994).

Two recent studies highlight the need to subject peer delivered services to the same level of rigorous investigation as other treatment services. One is the supported socialization study of Davidson et al. (2004). This was an evaluation of The Partnership Project, an innovative program to link consumers with people willing to enter into new friendships with mental health services consumers. In that study, people matched with a non-consumer volunteer had better outcomes when they met with their partner more, whereas people matched with consumer volunteers had better outcomes when they met with their partner less. A conclusion from this study was therefore that supported socialization appears to be effective to the degree that it is not oriented toward the pursuit of activities within the mental health system. For study participants, it appeared that being linked with a non-consumer was more of a positive experience by virtue of its being normalizing, contrasted with being linked with another person identified as a consumer.

A second instructive recent study is that of Bellamy et al. (2006) on groups led by consumers in consumer centered programs such as clubhouses and drop-in centers. Two major findings from this study were the high rate of bizarre and inappropriate behaviors among group participants, and the frequent lack of good leadership qualities among group leaders (including behaviors such as use of sarcasm, ignoring members, and interrupting). It should be noted that these and other inappropriate behaviors can also be found among professional case managers and residential psychiatric staff (Ball, Moore, & Kuipers, 1992; Berkowitz & Heinl, 1984; Cournos, 1987; Moore, Ball, & Kuipers, 1992; Moore & Kuipers, 1992; Simpson, 1989; Tattan & Tarrier, 2000), and therefore this is not a problem linked to consumer status, but most likely to inadequate training and supervision. Nevertheless, Bellamy et al. make the important point that while there may be an assumption that consumers can effectively deliver services due to their life experience of a psychiatric condition, the research does not support the assumption. They suggest that specific training in group leadership may be useful as part of the training of peer group leaders. What types of training will be most effective, and consumer characteristics that make for good or poor group leaders are important questions for further study.
A related but also unexplored area involves the effects of partnerships between peer and professional treatment providers. For example, generalization of skills training benefits may be achieved by working collaboratively with self-help groups, clubhouses, and other consumer-run services, in order to promote and maximize opportunities to practice new skills taught in psychiatric rehabilitation programs.

3.3.5. Non-psychiatric activities

The discussion above has focused on mental health interventions, whether delivered by consumers or trained mental health professionals. It should be noted, however, that a comprehensive approach to recovery involves more than mental health treatment. It also involves activities that promote wellness (including stress reduction), as noted above in the discussion of WRAP. This implies that consumers should be encouraged to engage in healthy activities, and that independent exploration of such activities should be encouraged as part of helpful relationships, whether formally therapeutic or otherwise. Consumer accounts have noted the multiple beneficial effects of engaging in exercise, spiritual activities, and other non-treatment experiences (e.g., Swarbrick, 2006). The effects of engaging in non-treatment experiences as part of the recovery process is an unexplored area. However, exploring the effects of these activities (e.g., involvement in sports) on overall functioning and outcome indicators is consistent with the idea of examining recovery promoting factors.

4. Conceptual issues related to recovery-oriented treatment

In this final section, we address some remaining issues that are relevant to both conceptualization and treatment, and therefore to research as well. One of these involves what can be seen as an apparent incompatibility between evidence-based practices (EBPs) and recovery-oriented care. Some authors have raised concerns about a fundamental incompatibility between these approaches (Essock et al., 2003), while others have demonstrated that the approaches are compatible (Bond, Salyers, Rollins, Rapp, & Zipple, et al., 2004; Tracy, 2003). Evidence-based practices are often manualized and delivered in a standardized format. They typically have specific pre-defined goals, which are consistent with clinician-driven treatment goals, although many such interventions (e.g., illness management and recovery) (Mueser et al., 2002) leave much room for individualization of goals and exercises and promote self-determination (Bond et al., 2004). Recovery-oriented care can be viewed as being consumer-driven in its goals, and therefore inconsistent with the use of evidence based practice, although recovery-oriented interventions can be driven by specific guidelines and subjected to rigorous evaluation (e.g., supported employment). As Frese, Stanley, Kress, & Vogel-Schilibia (2001) cogently argued, the apparent discrepancy may be most salient in residential settings where people are poorly able to regulate their own behavior to be consistent with environmental norms, but that even in this case, both perspectives are important. For example, for people who are severely disabled, highly symptomatic with reality testing difficulties, unwilling to engage in treatment despite severe illness, or at risk of harm to self or others, evidence-based practices (even as traditionally defined) can help a person regain the ability to self-regulate so that meaningful treatment collaboration is possible. As people are able to define goals, and to engage in a dialogue about how to reach them, treatment goals should be increasingly driven by the consumer. Moreover, non-treatment activities and self-help can take on a larger role in the person's life.

It should also be noted here that many consumers and families want evidence based practices, in the sense of wanting access to the best available treatments to help them with symptoms or behaviors that bother them. There is nothing fundamentally incompatible about consumer choice and the availability of a variety of interventions with demonstrated effectiveness. And, as we have noted throughout, the field could benefit from an evaluation and refinement of recovery-oriented services (including peer delivered services). Ultimately, the ideal scenario is for consumers of mental health services to have a wide range of choices about how to manage their psychiatric condition and how to achieve wellness, including the full range of professional- and peer-delivered services. Moreover, it is important for the decision making process that consumers have the best available evidence on effectiveness of all available services (professional- and peer-delivered), including data on effectiveness as it relates to the specific personal history, characteristics, and environment of the consumer. Given a full range of treatment options, important research questions involve what choices consumers make, which consumers make which choices at what stage of their recovery, what determines which choices are made, and what outcomes are associated with what choices. Relatedly, the issues of when consumers get to make treatment choices and which consumers get to do so is an unresolved issue, both scientifically and conceptually. This is a critical issue that the field of psychiatry must confront.

A second issue in need of attention involves the elderly population of people with schizophrenia, especially people who have had chronic disability. This group has generally not been the focus of treatment development efforts, which may be part of the reason outcomes have been poor. However, preliminary data indicate that reduction in functional impairments has been achieved with the UCSD Functional Adaptation Skills Training (FAST) program, which focuses on 6 areas: medication management, social skills, communication skills, organization, planning, and financial management (Patterson et al., 2003). Combining CBT and Social Skills Training is also effective for elderly people with schizophrenia (McQuaid et al., 2000). While more research needs to be done regarding treatments for elderly people with schizophrenia in residential settings, these data indicate that functional improvement is possible. Consistent with this trend, a new program, integrating psychosocial rehabilitation with health care management, has recently been developed, and is now being tested for its effectiveness (Pratt, Bartels, Mueser, & Forester, in press).

A third issue involves the recognition of the high rate of trauma in histories of people with schizophrenia, including childhood physical and sexual abuse, and post-diagnosis victimization (Mueser, Salyer et al., 2004; Read, van Os, Morrison, & Ross, 2005). It is also known that a history of trauma is associated with more severe psychiatric symptoms, increased risk of seclusion and restraint, and poorer social functioning (Schenkel, Spaulding, DeLillo, & Silverstein, 2005; Steinert, Schmid, & Bergbauer, 2006),
This recognition has led to the development of both specific interventions to treat trauma-related symptoms, and to a general approach to treating this population, known as trauma-informed care (Champagne & Stromberg, 2004; Harris & Fallot, 2001a,b; Huckshorn, 2006; Prescott, 2001). As these approaches are new, there is little evidence on their effectiveness as yet, although several large controlled studies are now underway. Given the high rate of trauma in people with schizophrenia, increased sensitivity to the effects of trauma, in terms of both the availability of specific interventions, and an overall approach to care, may be important aspects of recovery-oriented care. It will therefore be important to evaluate which treatments are most effective, and for whom.

A fourth issue relates to the role of hospitals in the treatment of people with schizophrenia. Taken to its extreme, a recovery-oriented perspective implies that all services should be of a supported nature (e.g., supported housing, supported employment), and hospital based treatment is obsolete and inconsistent with the model. However, there is no guarantee that community-based services will be delivered in a recovery-oriented fashion (including peer-delivered services; Bellamy et al., 2006), nor is there evidence at this point that all people currently in residential or partial hospital programs would function better with a combination of supported services. Indeed, there is a wealth of data that demonstrates that hospital-based services can lead to dramatic improvement, including transition to more independent functioning, among people who had been considered unable to live independently, or even treatment refractory (Corrigan & Liberman, 1994; Paul & Lentz, 1977; Silverstein, 2000; Silverstein et al., 2006). Also, as noted above, many people do not respond well to supported services, at least as they are currently delivered, or when people participating in them do not also have access to a full range of treatments that may be needed, or when environmental factors negate any gains from these services. Therefore, we believe more research is needed before supported approaches are applied to all people with schizophrenia, or potentially helpful hospital-based services are no longer funded. This issue relates to the continuing tension even among proponents of recovery regarding whether full recovery is a realistic goal for everyone with a history of schizophrenia (Fisher, 2006) or whether some people will continue to need significant clinician-delivered treatment services, including intermediate- and/or long-term hospitalization or partial hospital services during times in their lives (Frese et al., 2001).

Related to the issue of hospital treatment is the nature of treatment in correctional facilities. As hospitals have downsized and been closed, an increasing number of people with SMI are being treated in jails and prisons. In some cities and states, there are more people with psychiatric disorders now being treated in these facilities than in psychiatric hospitals or clinics. To our knowledge, the extent to which recovery-oriented care is being provided in such settings has not been explored. The extent to which this is even possible remains to be determined.

Finally, regardless of how recovery is defined in any specific situation (i.e., process, outcome, staff training philosophy), it is important to increase our efforts to evaluate what promotes recovery. Only in this way will the concept of recovery be able to benefit from the scientific enterprise, as opposed to remaining a potentially vague concept that does not realize its full potential. However, we are not suggesting that provider behaviors consistent with recovery-oriented values (e.g., hope, respect, dignity, choice, self-determination, independence, etc.) be withheld until a full evaluation of their contributions to outcome has been completed. There are humanitarian reasons to incorporate these values into treatment, ample data on the destructive effects of not doing so (e.g., Berkowitz & Heil, 1984; Cruz & Pincus, 2002; Cournos, 1987; Moore, Ball, & Kuipers, 1992; Moore & Kuipers, 1992; Simpson, 1989; Tattan & Tarrier, 2000; Whittington & Wykes, 1996), and evidence for the effectiveness of specific recovery-oriented practices such as shared decision making (e.g., Hamann et al., 2006). Moreover, listening to and valuing consumers’ experiences is an important step in evaluating current interventions, refining them, developing new ones, and appreciating the non-treatment aspects of people’s lives that can have healing effects. The ultimate test of whether our efforts are recovery-oriented will be whether we can use all available input and research evidence to help people live the most fulfilling lives that they can live.

References


