Supported Education for Adults with Psychiatric Disabilities: An Innovation for Social Work and Psychosocial Rehabilitation Practice

Carol T. Mowbray, Mary E. Collins, Chyrell D. Bellamy, Deborah A. Megivern, Deborah Bybee, and Steve Szilvagyi

With medications that improve cognition and advances in knowledge of successful rehabilitative approaches, adults with psychiatric disabilities are increasingly able to pursue desired personal and career goals in their communities. This article focuses on supported education (SEd)—one of the newest psychosocial rehabilitation (PSR) models for adults with mental illness. The mission, principles, and service components of SEd are presented, reflecting its basis in PSR practice. Evidence of the effectiveness of supported education, based on research and evaluation studies, is provided. The authors conclude with a discussion of why PSR and SEd are important to social work and how social workers can effectively use this evidence-based practice to maximize opportunities for consumers with a mental illness.

KEY WORDS: *mental illness; psychiatric disabilities; psychosocial rehabilitation; supported education*

> The value of education is so key. We must embrace learning as the path to true empowerment and effective personal and systems change.
>
> —*Paolo del Vecchio,* 2001, p. 9

Dual policies of deinstitutionalization and community-based mental health services have been a mainstay of the U.S. mental health system for the past 40 years (Goldman, 1998). However, these policies have been imperfectly implemented. In the 1960s, patient populations formerly treated in psychiatric hospitals received only minimal community-based treatment in the form of medications or outpatient psychotherapy. It soon became apparent that this situation produced a "revolving door" phenomenon wherein people with serious mental illness (SMI) cycled in and out of inpatient psychiatric care (Segal, 1995). Furthermore, service providers found that the mere physical presence of people with psychiatric disabilities in the community was not sufficient for their integration into occupational, educational, or social activities (Anthony, 1994).

Helping individuals with psychiatric disabilities optimize their functioning in pursuit of desired goals requires rehabilitation methods similar to those used with physical disabilities. "Rehabilitation focuses on the reduction of disability and the promotion of more effective adaptation in the individual's environment" (Silverstein, 2000, p. 228)—so individuals can acquire skills and knowledge to minimize their disability, and environmental supports to help them carry out their rehabilitation goals. Recognition of the need for rehabilitation services and support systems as critical supplements to mental health treatment led to the development of the Community Support Program (CSP) in the 1970s. CSP launched several innovative models for psychosocial rehabilitation (PSR), including supported employment (Tice, 1994) and supported housing (Ogilvie, 1997).

One of the keys to the effectiveness of PSR programs is that they are designed as a partnership between the person with a disability and the treating professional. PSR programs focus on individual recovery through adaptation to the demands of daily life (with medical and social supports, as needed) in the usual community setting, with goals and pursuits of the consumer's choosing; individuals must be included in their own recovery. As Davidson

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and colleagues (2001) put it, "When people do not have hope, a sense of self-worth, and a sense of their own efficacy, they will not be equipped to take on the formidable challenges inherent in attempting to cope with, not to mention recover from their disorder" (p. 379).

Research has shown that PSR services for people with psychiatric disabilities are effective, often producing more "normalized" role functioning for the majority of service recipients (Barton, 1999). Thus, PSR is congruent with social work's emphasis on evidence-based practice. The purpose of this article is to improve awareness and understanding of one of the newest interventions in psychosocial rehabilitation—supported education (SEd)—by providing an overview of SEd principles, services, and models and information on effectiveness evaluations. We also discuss why social work should be interested in SEd.

PSYCHOSOCIAL REHABILITATION

The International Association for Psychosocial Rehabilitation Services (IAPSRS) defines *psychosocial rehabilitation* as:

> a constellation of services designed for persons with SMIs and severe functional deficits…The goal is to enable individuals to compensate for, or eliminate, the functional deficits, and to restore ability for independent living, by … teaching skills and coping techniques, and helping the individual develop a supportive environment, and restore a sense of mastery over his or her life… PSR providers build on the strengths of each individual, by emphasizing wellness and by including families and the community in the recovery process (Hughes, 1993, p. 3).

The values of PSR—hope, choice, normalization, engagement in meaningful activity, self-determination, building supports and relationships, and the need for systems change—have been summarized by several experts (Beard, Propst, & Malamuc, 1994; Deegan, 1994; Hughes, Woods, Brown, & Spaniol, 1994).

Future developments in mental health are likely to increase the importance of psychosocial rehabilitation for several reasons. Managed care demands that the high costs of mental health services be contained, and research has shown that rehabilitation programs lessen the direct and the indirect costs of mental illness by reducing the need for inpatient services (Anthony, 1996; Clark, 1998). Also, with psychiatric medications that are better tolerated and able to improve cognitive abilities, even greater numbers of individuals are likely to experience stabilization of their psychiatric symptoms (Bentley & Walsh, 2001; Geddes, Freemantle, Harrison, & Bebbington, 2000; Kotulak, 2003; Weiss, Bilder, & Fleischhacker, 2002) and therefore be more able to benefit from rehabilitation programming.

Building on the successes afforded by improvements in diagnosis, psychopharmacology and rehabilitation technology, recovery from mental illness has become a guiding vision, offering new paradigms, new questions, and new answers for the current mental health system (Harding, Anthony, Chamberlin, & Farkas, 2001). People with mental illness and consumers of mental health services have written numerous personal accounts of their recovery experiences (Deegan, 1988; Howie the Harp, 1994). Recovery is clearly more than a buzzword, perhaps because of its consumer origins. Today, even more consumers are achieving occupational and other community-based goals with the assistance of PSR (Cook & Jonikas, 1996; U.S. Department of Health and Human Services [HHS], 1999). Social work administrators, practitioners, educators, and researchers would do well to increase their knowledge about PSR practice and about effective PSR interventions to help individuals with mental illness in their visions of recovery. As it is with many young adults in the 21st century, these visions are often grounded in educational achievements.

THE VALUE OF EDUCATION

Education affords opportunities and identity transformation, often providing individuals a clean slate as they reintegrate into society. Individuals and society as a whole rely heavily on the benefits of higher education. Advanced educational degrees are important prerequisites for most professional and skilled occupations; earnings and benefit packages are typically higher for people with education beyond high school (Unger, 1993). According to Kati Hancock, director of the Education Trust: "In this economy, if you don't have some post-secondary education, the likelihood that you're going to get a decent job and help support a family is nearly nonexistent" (Pierson, 2002, p. B1). In the 2003 graduating class of high school seniors, 63.9 percent enrolled in college the following semester (Bureau of

Labor Statistics, 2004). Educational achievements can help prevent psychological distress (Mirowsky & Ross, 1989). Furthermore, academic settings are excellent surroundings for individuals to be exposed to new ideas; this process is believed to lead to the development of personal value systems and the enhancement of critical thinking (Akabas & Gates, 2000; Fairweather & Shaver, 1990), which, for people with a history of psychiatric hospitalizations, is often necessary given that many have been bereft of opportunities to think for themselves. For example, programs often do not ask consumers about their goals or give them choices or opportunities to make decisions. McCubbin and Cohen (2003) summarized the barriers to consumer empowerment in social work practice, including perceptions that clients with impaired capacity need to have decisions made for them and that perceived inability to make decisions may reflect lack of experience rather than lack of competence.

Despite the importance of higher education, many people with psychiatric disabilities are unable to gain access to educational resources or maintain their involvement with educational institutions (Cheney, Martin, & Rodriguez, 2000; Unger, 1998). In one national data collection, researchers estimated that at that time, nearly 4.29 million U.S. residents would have graduated from college if they had not experienced an early-onset psychiatric disability (Kessler, Foster, Saunders, & Stang, 1995). Without support, most individuals with SMI have not been able to pursue higher education goals—because of stigma, discrimination, past educational failures, or other problems (Austin, 1999). In the United States people with SMIs are still one of the most stigmatized groups (Swindle, Heller, Pescosolido, & Kikuzawa, 2000; HHS, 1999). West and colleagues (1993) found that students with disabilities in colleges and universities in Virginia reported resistance and discrimination from instructors and university personnel and stigmatization from faculty and students. Attempts by the student support services office to obtain needed services and accommodations were ineffective.

COLLEGE STUDENTS WITH MENTAL ILLNESS

Research is accumulating on the higher education experiences of people with psychiatric disability. Three recent studies focused on faculty and administrators' perceptions of students with mental illness. Szymanski and colleagues (1999) surveyed a random sample of 670 faculty and 330 academic staff at a midwestern university, regarding their perception of disability support services and student communication about their disability (mail survey, 38 percent response rate). Verification of disability was found to be more important for students with learning and psychiatric disabilities than for students with physical and sensory disabilities. Although instructors felt it was important for students with all disabilities to communicate directly with them, this was considered more important for students with psychiatric disabilities than for those with learning or sensory disabilities.

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In England, Stanley and Manthorpe (2001) conducted a survey of all academic staff with teaching responsibilities at one medium-size university about their experiences with students with mental health problems (76 percent response rate). Thirty-five percent of respondents (n = 429) reported having supervised students with mental health problems in the past five years. Of these, 60 percent were seen as "minor" mental health problems; 28 percent were described as "severe" or "life threatening." Tutors responding to the survey reported that the most frequent (27 percent) difficulty was students' unwillingness to receive or obtain help, which was attributed to the stigma related to disclosure of mental health problems. Most recently, Becker and colleagues (2002) surveyed faculty at a large, urban, southern university. Their survey (21 percent response rate; n = 315) found that although most respondents had positive expectations for the success of students with mental illness, "many … are not uniformly positive or knowledgeable… and report that they lack information about university services and benefits available to these students" (p. 367).

Similar methodological weaknesses are found in these studies. Each was conducted in one university setting; therefore, findings may represent unique environments. Two of the studies had low response rates, typical of written surveys. Most important, each of the studies asked about perceptions of mental illness among students. None used clinical or

diagnostic measures of mental illness. It is not certain that students perceived as having mental illness do, in fact, have this disability. Conversely, students with mental illness may not display symptoms of the disorder. Studies of this type might be improved by greater accuracy in classifying students with mental illness. This is complicated by many students' reluctance to identify themselves as having a mental illness and their rights to confidentiality of this information.

SEd arose in response to requests from consumers and family members for PSR services that could help individuals with SMI begin or restart the process of achievement in higher education. Thus, SEd, as developed in PSR programs, has concentrated on increasing access to higher education for individuals with mental illness who are starting to pursue or re-enroll in higher education, rather than on retaining students on campus who are first experiencing a disabling psychiatric disorder.

SUPPORTED EDUCATION

SEd prepares people with psychiatric disabilities to achieve postsecondary education goals. Its mission is to empower adults with SMI to choose their own higher education goals and acquire the tools necessary for achievement in postsecondary education settings, attain their highest potential, and succeed in their efforts. Congruent with PSR practice, SEd seeks to achieve its mission by increasing individual skills, increasing support from the environment, and maximizing the fit between the individual and his or her environment—that is, the likelihood that the individual will be able to acquire supports and the likelihood that the environment will be able to respond positively (Sullivan, Nicolellis, Danley, & MacDonald-Wilson, 1993). This involves a systems approach, with the student actively involved in its direction. A necessity for successful SEd implementation is collaboration among a variety of stakeholders: consumers and their organizations, community mental health centers, families and their organizations, postsecondary education institutions, and vocational rehabilitation agencies. SEd is congruent with the independent living movement, in its emphasis on choice and on adapting the environment to meet the needs of the individual with a disability. It also fits well with the interests of disabilities studies in that both focus on strengths and take the perspective of the person with a disability.

SEd services are appropriate for many individuals with mental illness—generally including adults with psychiatric impairments or disabilities who need ongoing supports to succeed in the education environment. Eligibility criteria are that participants have access to mental health treatment services to address crisis, medication, or basic needs. Also, individuals need to have basic academic competence (for example, GED or at least 11th-grade education), to avoid extreme program heterogeneity; that is, if students do not have close to a high school education, their reading, writing, verbal expression, and comprehension skills are likely to be so deficient that they would not be able to complete homework assignments or make meaningful contributions to class. Students with very low academic competence will not benefit from the program, and other students may become bored or drop out. Finally, congruent with PSR values, the decision to enroll in SEd must be made by participants themselves, not case managers or families (Parten, 1993).

SEd services build on the unique strengths of each individual. The program content uses a paradigm promoting individual capacities to take control over disabilities and to gain access to needed resources and environmental modifications. The program theory behind SEd is to engage students in the program through support and reassurance; to provide opportunities to develop a new, positive identity as student in contrast to the stigmatized role of psychiatric patient; and to enable students to take control of their disability, their environment, and their futures through knowledge and skill practice. The principles and values of SEd are

- *hope*—Every individual is treated with respect and dignity and as a developing person capable of growth and positive change. A core focus of SEd is helping consumers identify vocational interests and set short and long-term career goals.
- *normalization*—SEd services use nonstigmatizing methods and settings, to the extent possible, such as vocational planning tools and interest inventories and classrooms or staff offices on a college campus. All program participants are called "students," not patients or clients. Services are consistent with the normal routines of life in the community, following the semester schedule of the college

campus, for example. Furthermore, SEd services are individualized—tailored to meet the unique and changing needs of each student.

- *self-determination*—All aspects of the SEd program are geared toward maximizing opportunities for choice. In SEd, students identify and explore their career interests and make choices about their future vocation and the education and training needed to attain it. SEd programs give students knowledge and skills to succeed in postsecondary settings, including tools and practice in effective self-advocacy and information on relevant campus resources and how to gain access to them. Students participate in all aspects of the program, from planning session topics to designing evaluations. Students can also serve as members of the board or advisory council, volunteer peer mentors, or be paid as staff, tutors, or research assistants.
- *support and relationships*—Students receive support in acquiring and practicing skills and obtaining resources to meet their career goals. An important element of SEd is the opportunity for students to learn from each other and to develop an ongoing support group or supportive relationships with peers and mental health providers to assist with the pursuit of career goals. Support services through an SEd program are provided for as long as needed. Furthermore, services need to be available and accessible: widely publicized and with staff available to advise those interested in enrollment. Also, barriers to participation must be addressed (such as lack of transportation, scheduling difficulties, and child care needs). Because many supports are necessary for learning and goal achievement, students are encouraged to maintain relationships not only with the SEd staff, but also with student services on campus, peers, family members, mental health workers, and other service providers.
- *systems change*—SEd programs engage in proactive activities to support accommodations on the campus for students with psychiatric disabilities and to promote awareness of mental illness stigma and discrimination. Programs also need to identify barriers in the social and economic environments that affect consumers' education goals and recovery potential, such as negative attitudes of service providers, fears and overprotective behaviors of family members, and consumers' internalized mental illness stigma. SEd programs incorporate empowerment strategies, such as collaboration between stakeholders, assistance with and teaching of self-advocacy; shared access to valued resources, non-hierarchical thinking, and open communication.

Core Services and Supports Provided through SEd

SEd programs follow the PSR model of "choose-get-keep"—helping individuals make choices about paths for education and training, helping them get into an appropriate education or training program, and helping them keep their student status in that program until their goals are achieved (Mowbray, Brown, & Szilvagyi, 2002). Although SEd programs differ, most offer these core services (Brown, 2002):

- *career planning:* providing instruction, support, counseling, and assistance with vocational self-assessment, career exploration, development of an educational plan, and course selection
- *academic survival skills:* strengthening basic educational competencies; providing information on college and training program enrollment, time and stress management, developing social support for educational pursuits, and tutoring and mentoring services; and offering opportunities for confidence building and social development in a normalized setting
- *outreach to services and resources:* facilitating referrals and contacts with resources on campus (for example, computing center) and relevant human services agencies, such as vocational rehabilitation; providing help for the college enrollment process, education on rights and resources for people with disabilities, and assistance in obtaining financial aid and in resolving educational debts; and making available contingency funds.

For SEd to promote "normalization" and role transformation from "psychiatric patient" to student, some significant part of the service should be located on a college campus (Cheney et al., 2000).

Variety in teaching strategies is also a programmatic necessity, because students learn in diverse ways. Teaching methods include didactic teaching, as well as vicarious, experiential, and collaborative learning. Usually, the professionals employed as key SEd staff are education specialists and do not provide mental health treatment; however, they help students obtain services and coordinate with these service providers and among SEd, community, and academic services (with the students' permission). Congruent with PSR principles, SEd may advocate for students, but the long-term goal is to develop students' capability and skills in advocating for themselves.

History and Expansion of Supported Education

The first SEd program described in the literature was at Boston University (BU), Center for Psychiatric Rehabilitation (Mowbray, Brown, Furlong-Norman, & Sullivan-Soydan, 2002). Replications of SEd began with the use of federal rehabilitation funds through the BU Center at seven sites nationwide. The Massachusetts Department of Mental Health subsequently provided funding for SEd programs at a variety of locations in that state. The California Community College system elevated the visibility of psychological disabilities in a mandate to disabled student programs to serve this population; four sites were chosen to implement services to adults with psychiatric disabilities (Mowbray & Collins, 2002; Parten, 1993; Unger, 1993). Publications have described successful SEd programs at the College of San Mateo, California; Laurel House in Connecticut; the Community Scholars Program in Chicago; CAUSE in Massachusetts, and elsewhere (Mowbray, Brown, Furlong-Norman, & Sullivan-Soydan; Unger, 1998). There are more than 100 SEd programs in the United States and Canada, based in settings ranging from universities and community colleges, to PSR clubhouses, community mental health agencies, consumer and advocacy groups, inpatient psychiatric hospitals, and grassroot and mutual support organizations (Mowbray, Brown, Furlong-Norman, & Sullivan-Soydan; Mowbray, Megivern, & Holter, 2003). Participants have included men and women of varied ages and ethnic backgrounds who have severe and persistent mental illnesses.

Unger (1990) originally classified SEd programs into three general models, distinguished by the degree to which participants were integrated into campus life and by the agency providing the support services (Mowbray, Moxley, & Brown, 1993):

1. *Self-contained classroom model*—students with psychiatric disabilities attend classes on campus designed specifically for them. Classes use a structured curriculum and are time-limited. The curriculum has a strong vocational focus (developing career goals) and concentrates on academic skill-building and practice and providing supportive relationships with staff.
2. *On-site model*—generally sponsored by a college or university, individual not group-based. Rather than special programming, it uses on-campus services available to all students with disabilities, enhanced to be more relevant and accessible, such as, through the addition of specialized mental health staff or a peer support group.
3. *Mobile SEd model*—services provided through a mental health agency, with students selecting their own postsecondary education sites. Workers from the SEd program provide support, assistance, and trouble-shooting to students on-site in an individualized and flexible manner.

Although these may be prototypes, the programs typically combine elements of several models. Recent literature suggests that this classification may no longer be as useful as when supported education was just developing (Soydan & Rapp, 2002; Unger 1998; Wells-Moran & Gilmur, 2002). The results of a recent national survey of all identifiable SEd programs in the United States for adults with psychiatric disabilities suggest that a new classification would be more useful, based on the organizational setting for the SEd program: clubhouse, college on-site, or free-standing model (Mowbray et al., 2003). The majority of SEd programs are in clubhouses; typically they provide individual, one-on-one educational counseling along with tutoring, mentoring, and group support, plus either mobile support or group-based classroom preparation (preferably on a college campus). The on-site program resembles Unger's (1990) original description, and the free-standing program is eclectic. Programs are typically funded through their host agency. Overall, the most frequent sources of funding are

state and county mental health agencies, followed by state vocational rehabilitation programs.

EFFECTIVENESS OF SUPPORTED EDUCATION PROGRAMMING

There is evidence that SEd programs help people with psychiatric disabilities gain access to and complete postsecondary education. Published reports of SEd evaluations indicate that the services are well-used; rates of active participation following enrollment range from 57 percent to 90 percent (Mowbray & Collins, 2002). Methodologies have varied; many are descriptive, recording percentages of participants attaining key outcomes. Others have stronger designs using comparison groups and pretest–posttest designs. One study used an experimental design (Mowbray, Collins, & Bybee, 1999). The length of observation varied across studies. Most studies reported outcomes attained at the end of the program, although a few reported follow-up results postprogram.

Educational Attainment

Dougherty and colleagues (1992) reported on educational outcomes for 27 participants involved in a clubhouse model of supported education: 75 percent were enrolled in community college, 14 percent in four-year colleges, and 11 percent in post–high school technical and training programs (Table 1). Discussing an SEd model that provided mobile support for students, Wolf and DiPietro (1992) reported the following outcomes ($N = 38$): 74 percent attempted at least one college course; of those who registered and attended, 60 percent enrolled

Table 1: Characteristics of Studies Reviewed for Educational Attainment of Adults with Psychiatric Disabilities

Study	Sample Size	SEd Model	Demographics	Outcomes
Unger, Anthony, Sciarppi, & Rogers, 1991	52	campus-based	60% male; 86% white; 83% with post–high school education	Significant increase in educational enrollment; significant increase in competitive employment; significant decrease in hospitalizations
Dougherty et al., 1992	27	clubhouse model	64% male; 79% white; 46% with prior college experience	75% enrolled in school at end of program; 33% independent employment
Wolf & DiPietro, 1992	38	mobile support	68% male; 74% white	74% attempted one college course
Cook & Solomon, 1993	125	classroom and mobile support	59% male; 64% white	42% had taken one class; 47% employed at follow-up; significant increase in self-esteem
Hoffmann & Mastrianni, 1993	68	inpatient setting	38% male; mean years of schooling = 13	69% returned to college
Lieberman, Goldberg, & Jed, 1993	30	mobile support and individual counseling	50% male; 67% white	27% attended some college
Mowbray, Collins, & Bybee, 1999	397	classroom and group support models	48% male; 61% African American; approximately 50% had some post–high school experience	24% enrolled in college or vocational program at follow-up; higher quality of life and self-esteem than control group
Unger, Pardee, & Shafer, 2000	124	3 sites: mental health program, community college, clubhouse program	45% male; 76% white; 39% had previous college experience	90% of college course work completed; GPA 3/14; increase in number of students living independently

Note: SEd = supported education.

at a community college, 32 percent at a vocational/technical school, and 7 percent at a four-year university. Lieberman and colleagues (1993) reported on a model, operated by a state mental health services provider, that combined a mobile SEd program and a counseling service for the college bound. Results from the end of one year found 27 percent of participants had attended some college. In a follow-up survey conducted with 102 participants of a classroom-style SEd program, Cook and Solomon (1993) found that 42 percent of participants had taken at least one class and six participants had received a postsecondary degree, ranging from certification to a master's degree (Table 1).

Comparing school enrollments before and after participation in a classroom SEd, Unger and colleagues (1991) found a significant pre–post increase in class enrollment. They reported an increase from 19 percent to 42 percent either enrolled in an education program or involved in competitive employment (Table 1). Focusing specifically on young adults and using a quasi-experimental design, Hoffmann and Mastrianni (1993) compared outcomes of patients from two inpatient settings, one of which was a specialized SEd psychiatric service. Sixty-eight patients who were provided SEd were compared with a matched (by age, education, and hospitalization) control group. They found that patients in the SEd group were significantly more likely to return to college than those in the control group (69 percent compared with 47 percent). The Michigan Supported Education Program used a randomized control trial design to study the effectiveness of a group-based SEd intervention on a community college campus. At 12 months post-program, for the group intervention condition, the number of participants enrolled in college or vocational training increased significantly, from 6 percent at baseline to 28 percent, whereas in the control condition, enrollment over time did not change (Mowbray et al., 1999).

Additional details about the postsecondary experience are provided in some studies. Unger and colleagues (2000) reported that students in three different SEd program models (N = 124) completed 90 percent of their college course work. Cook and Solomon (1993) reported that the average number of classes completed was 3.6 and Collins and colleagues (1998), studying the Michigan program, reported that most students (42 percent) reported taking two courses. Dougherty and colleagues (1992) and Collins and colleagues (1998) provided information on the types of classes in which students were enrolled; English, social sciences, business, and other typical college courses were common. There is little information on grades achieved in SEd programs. However, multiple studies reported that most students received or were anticipating passing grades (Collins et al., 1998; Dougherty et al., 1992; Unger et al., 2000; Wolf & DiPietro, 1992).

Because the longitudinal follow-up of each of these studies was limited, the extent to which students involved in SEd programs completed educational degrees or certificate programs is unknown. No study examining these longitudinal outcomes has been conducted. Nonetheless, the number and type of courses appear typical of part-time community college students. Thus, to the extent that SEd is designed to facilitate normative postsecondary experiences for people with mental illness, the limited data suggest that the programs are successful. More research on the extent to which these programs contribute to attainment of degrees and subsequent economic advancement is needed.

Vocational Achievement

Although educational participation is the primary focus of SEd programs, their attention to vocational planning and career choice make vocational outcomes of program participation of equal concern. Unger and colleagues (1991) found a significant increase (over baseline) in competitive employment for participants. Dougherty and colleagues (1992) reported that nine students (33 percent) in SEd gained employment independent of the clubhouses' transitional employment program, with two completing certificate programs and attaining jobs directly related to their course of study. Cook and Solomon (1993) found that between program intake and the follow-up interview, 78 percent of participants had held at least one job and 47 percent were currently employed. Both the number of hours worked (17.7 to 21.4) and the average hourly wage ($4.35 to $4.76) increased significantly from intake to follow-up. Unger and colleagues (2000) found that the employment rate of 42 percent achieved during their study was lower than that of part-time students in general, but higher than that of the general population of people with mental illnesses.

Self-Esteem and Other Self-Perception Measures

Unger and colleagues (1991) reported increases in self-esteem during their program. Cook and Solomon (1993) found significant increases in self-esteem, marginally significant increases in coping mastery, but no significant change in anxiety. Mowbray and colleagues (1999) reported that at 12 months follow-up, participants in the experimental conditions had higher scores on quality of life and self-esteem and significantly lower scores on social adjustment problems than did participants in the control condition. Unger and colleagues (2000) found no significant changes in self-esteem or quality of life across three SEd programs.

Hospitalization

Only two studies examined hospitalization as an outcome. An early study (Unger et al., 1991) found a significant reduction in hospitalizations during the first year of the program, and a recent study (Isenwater, Lanham, & Thornhill, 2002) found both inpatient and day-patient hospitalization rates reduced substantially. Although the sample in the latter study was small, before the program six participants had a total of 415 days of inpatient care, whereas during the program no one required hospitalization. Similarly, eight participants had a total of 1,283 days of day treatment care, whereas during the program none were required. The net difference in government spending per student was almost $12,000 (using data on government expenditures and allowing for program costs).

Client Satisfaction

When measured, it appears that SEd participants are satisfied with this intervention. In Cook and Solomon's (1993) study, 49 percent of participants were "very satisfied" and 42 percent were "mostly satisfied" with the program. Collins and colleagues (1998) reported that participants in the classroom and group intervention models of SEd had significantly higher levels of satisfaction and enjoyment than those in the control condition.

Summary of Evidence

Research on a variety of SEd models provides strong evidence of effectiveness. Because of published research findings, SEd has been endorsed by the Center for Mental Health Services, SAMHSA, and the National Mental Health Association's Partners in Care Program as an exemplary practice for treatment and rehabilitation of adults with psychiatric disabilities. Of course, more research is needed to improve SEd, to distinguish populations that can most benefit, and to determine the optimal settings through which SEd services should be delivered.

GENERALIZABILITY OF SUPPORTED EDUCATION

An important question to answer before replications are pursued is what individuals are most appropriate for SEd services in terms of participating and succeeding. Evaluation studies of SEd programs have reported on at least some characteristics of program participants, although comparison data to assess the extent to which participants are representative of the general young adult population with mental illness are lacking. Studies are fairly consistent in terms of the demographic characteristics of participants: relatively equal numbers of men and women participated, and race and ethnicity were consistent with the population of the geographic area. Participants tended to be in their early 30s and have low incomes. All met criteria for SMI (in terms of duration and extent of disability), and multiple diagnoses were represented. Many programs require a high school diploma or general education degree. Many studies of SEd enrollees report significant numbers with college experience. Thus, SEd enrollees are probably better educated, with fewer cognitive limitations than the overall population with SMI.

Evidence as to who is most likely to succeed in SEd is much more limited. Our randomized clinical trials of SEd (the Michigan Supported Education Program) (Collins, Mowbray, & Bybee, 2000) analyzed outcome data to address this question. For individuals who completed the SEd program (n = 147), we compared those who were engaged in productive activity (college, vocational education, or paid employment) with those who were not, using multivariate logistic regression. As is frequently the case in predicting employment outcome, the strongest predictor of productive activity at follow-up was productive activity at baseline. Other significant predictors included marital status (that is, single participants were less likely to be engaged in productive activity); social support (that is, more frequent contact with the social network increased the likelihood of productive activity), and

a higher level of reported problems with housework (that is, increased the likelihood of productive activity). Negative predictors of productive activity included high financial stress and more encouragement for education.

IMPLICATIONS FOR SOCIAL WORK PRACTICE

Social workers are one of the primary professional groups serving people with mental illness (Manderscheid & Sonnenschein, 1990; Werrbach & DePoy, 1993); the largest percentage are employed in mental health settings, exceeding the numbers in other practice areas, such as children and youths, family practice, or health care (Rose & Keigher, 1996; Teare & Sheafor, 1995). In schools of social work, the mental health concentration has the largest percentage of graduate-level social work students (Bronstein, 2003; Callicutt & Price, 1997). Demands for social workers are likely to increase as more and more individuals with psychiatric disabilities are able to pursue "normalized" roles in the community—that is, if the right supports, training, and assistance are provided.

PSR practice is congruent with the social justice mission of social work and its ecological focus (NASW, 2000). Given this congruence and social work's involvement in the mental health arena, PSR should have a prominent place in social work research and practice. However, attention to PSR as a social work practice method has been minimal. Articles about PSR in psychiatric journals far exceed coverage in mainstream social work journals. Clearly, social workers need to pay more attention to PSR models and innovations. Supported education is a good place to start. With SEd approaches, providers can promote educational opportunities to help people reap the social, vocational, and financial benefits of education essential to the achievement of personally meaningful and valued community participation (Anthony, Furlong-Norman, & Koehler, 2002). Social workers are known to have been involved in some SEd programs described in the literature (for example, Mowbray et al., 1999); however, most programs are interdisciplinary and have not identified social worker involvement. Similarly, we have individual accounts of SEd students who go into social work (see Mowbray, Brown, Furlong-Norman, & Sullivan-Soydan, 2002), but no examples of social work education programs with PSR focus.

Besides their congruence with the social work mission, SEd programs may offer significant opportunities to social workers, given current funding priorities. That is, business as usual in mental health may soon be a thing of the past, and practice opportunities with "more intellectually and emotionally rewarding clients" (Shera, 1996, p. 198) may be substantially limited or nonexistent. That is, whereas managed care has produced sharp reductions in spending by employers on health care benefits, the decline in behavioral health care benefits is even more marked (54 percent compared with 7 percent) (O'Neill, 1999). The past decade has witnessed significant cutbacks in funding for outpatient services and in reimbursements to practitioners. New funding mechanisms have resulted in the closure of some community mental health centers (Shera). These trends indicate that services for people with less serious disturbances will be increasingly scrutinized and regulated, implying that funding or reimbursement will only be allowed for briefer forms of therapy and social work practice with proven outcome effectiveness (Jarman-Rohde, McFall, Kolar, & Strom, 1997). Thus, opportunities for private practice mental health services could become increasingly limited (Raskin & Blome, 1998). Social workers in the mental health arena are more likely than ever to face challenging assignments working with those with long-term SMIs. The Global Burden of Disease study indicated that four of the 10 leading causes of disability are mental disorders (Murray & Lopez, 1996); but up to two-thirds of people with mental disorders do not seek treatment (Kessler et al., 1996).

The good news is that effective rehabilitative models, like SEd, are available to people with SMI. Perhaps individuals would be more willing to seek and receive mental health and rehabilitative services if the probable outcomes were more positive and professionals talked about "recovery" rather than merely keeping people out of hospitals. Social work in a rehabilitation framework can affect discriminatory stereotypes by demonstrating that adults with mental illness, with supports, can attain rehabilitation and recovery goals and participate meaningfully in their communities. Thus, not only is SEd congruent with social work practice, it is a practice that social workers may be optimally trained to develop, implement, and operate. However, for social work to do so, many challenges need to be overcome.

Social work education and field instruction need to prepare students adequately for community-based practice with adults with psychiatric disabilities. This means developing placements in PSR agencies that offer SEd and other innovative programs that are consumer-driven. But new placements are not enough. Attitudinal barriers of faculty, students, and practitioners must be addressed (Akabas & Gates, 2000). Prevalent myths must be challenged—for example, that people with psychiatric disabilities cannot meet the demands of college, are disruptive in an academic setting, are not interested in pursuing higher education, or cannot take the stress of college (Austin, 1999; Mowbray et al., in press). Curriculum and continuing education should reach out to and involve consumers as guest lecturers, to ensure that social workers understand and value their perspective. True collaboration is needed between individuals living with a mental illness and practitioners (Harding et al, 2001). In SEd and other PSR services, professionals often have to shift their roles from counselors and social workers to teachers and mentors (Barton & Steiner, 2001).

Making the necessary changes in services to individuals with psychiatric disabilities requires significant policy and advocacy efforts. PSR practice recognizes that successful rehabilitation outcomes require changes at the system level, as well as in micro and meso environments. System-level changes include broadening mental health services to include rehabilitation, addressing the stigma and discrimination that prevent adults with psychiatric disabilities from fully participating in their communities, and ensuring that consumers have an adequate voice in program and systems planning and that funded interventions are truly consumer-centered.

Continuing education workshops and professional conferences on PSR methods are increasingly available through interdisciplinary organizations like the International Association for Psychosocial Rehabilitation Services and the National Mental Health Association. Furthermore, federal funding from the National Institute for Disability and Rehabilitation Research supports training centers (for example, the National Center for Rehabilitation Research and Training in Chicago and the Center for Psychiatric Rehabilitation in Boston) that periodically offer courses, certificates, and other professional education opportunities. Appropriately using PSR methods and materials, such as those available on SEd, is likely to increase consumer motivation and participation in services and improve consumer outcomes and satisfaction.

Social workers knowledgeable about PSR practice and about SEd programming could work with consumer groups, PSR programs like clubhouses, and public mental health systems to initiate SEd services. Some mental health authorities (for example, in Illinois, New York, and Ohio) are embarking on system change efforts to incorporate innovative models, based on evidence-based practices (see Barton & Steiner, 2001; Carpinello, Rosenberg, Stone, Schwager, & Felton, 2002; Hogan, Roth, Svendsen, & Rubin, 2002). SEd should be included in such initiatives, given that it has been endorsed as an exemplary model by both the National Mental Health Association and SAMHSA/Center for Mental Health Services. The social work profession, with its combined expertise in interpersonal practice, mental health treatment, and community organizing, should be at the forefront in taking advantage of possibilities for expanding SEd to consumers with SMI as a tool that helps them achieve the vision of recovery. According to Vourlekis and colleagues (1998), the profession could be strengthened through the combination of social action and direct practice addressing socially acknowledged needs. Social work would, thus, hark back to its original role in public mental health systems—advocating for and directly providing services to individuals with psychiatric disabilities. SW

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Carol T. Mowbray, PhD, *is professor, School of Social Work, University of Michigan, 1080 South University, Ann Arbor, MI 48109-1106; e-mail: cmowbray@umich.edu.* ***Mary E. Collins, PhD,*** *is associate professor, School of Social Work, Boston University.* ***Chyrell D. Bellamy, MSW,*** *is a research associate and doctoral candidate, School of Social Work, University of Michigan.* ***Deborah A. Megivern, PhD, MSW,*** *is assistant professor, George Warren Brown School of Social Work, Washington University, St. Louis.* ***Deborah Bybee, PhD,*** *is associate professor, Department of Psychology, Michigan State University, East Lansing.* ***Steve Szilvagyi, MA,*** *is an independent consultant, East Lansing, MI.* *This study was funded, in part, by the Center for Mental Health Services, SAMHSA, through a Community Action grant to the University of Michigan (grant no. KD1-SM52684) and a Community Support grant to the Michigan Department of Mental Health (grant no. HD SM47669), and by the U.S. Department of Education, Fund for the Improvement of Post-Secondary Education (FIPSE). The research represented a collaboration between Schools of Social Work at the University of Michigan, Eastern Michigan University, and Wayne State University and the Detroit-Wayne County Community Mental Health Agency.* *Address correspondence to Dr. Carol T. Mowbray.*

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