



EVIDENCE-BASED
PRACTICES

KIT

Knowledge Informing Transformation

The Evidence

Supported Education

A Promising Practice



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
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The Evidence

The Evidence introduces all stakeholders to the research literature and other resources on Supported Education. This booklet includes the following resources:

- Review of the research literature;
- Selected bibliography for further reading;
- References for the citations presented throughout the KIT; and
- Acknowledgments of KIT developers and contributors.

Supported Education

A Promising Practice

This KIT is part of a series created by the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services.

This booklet is part of the Supported Education KIT that includes a CD-ROM and seven booklets:

How to Use the KITs

**Getting Started with Evidence-Based
and Promising Practices**

Building Your Program

Training Frontline Staff

Evaluating Your Program

The Evidence

Using Multimedia to Introduce Your Promising Practice



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Supported Education

A Promising Practice

The Evidence

Review of the Research Literature

The following pages include a review of the research literature for Supported Education. In addition to this review, the research literature is summarized in the following article:

Mowbray, C. T., Collins, M. E., Bellamy, C. D., Megivern, D. A., Bybee, D., & Szilvagy, S. (2005). Supported education for adults with psychiatric disabilities: An innovation for social work and psychosocial rehabilitation practice. *Social Work, 50*, 7-20.

Although education is considered an essential element in obtaining satisfying work and achieving economic independence, people with mental illnesses have not been able to fully utilize this community resource.

Many consumers have tried to return to education programs or college on their own and met with frustration and failure because they faced stigma or lacked the necessary support.

The onset of serious mental illnesses is highest between the ages of 15 and 21 (Newman et al., 1996) when young people are beginning the development of their adult roles. During this time they are completing secondary education, completing a postsecondary degree program or vocational training that prepares them to work, developing relationships from which to create a social network, and learning their rights and responsibilities within their communities. The onset of a mental illness disrupts this process.

Once it is disrupted, it is extraordinarily difficult to recreate. Returning to an education setting provides a means to revisit developmental tasks and regenerate lost opportunities.

The past 10 years have brought many advances in the provision of services to people with mental illnesses, and discussions have centered on activities that promote recovery. Particular emphasis has been placed on Supported Employment programs (Bond et al., 2001).

Research studies report impressive increases in employment (from 12.9 to 64.5 percent) for consumers who participate in Supported Employment programs (Bailey, Ricketts, Becker, Xie, & Drake, 1998). However, the work placements are typically in entry level and unskilled positions, and long-term employment is problematic. Forty-one to 77 percent of clients terminate employment within 6 months (Bond, Drake, Mueser, & Becker, 1997).

Supported Employment is an evidence-based practice that helps people with mental illness find and keep meaningful jobs in the community.

Given these outcomes the challenge for Supported Employment programs is to rethink the emphasis on immediate work for everyone and help consumers utilize appropriate education and training opportunities available in their communities so they can, over time, qualify for skilled jobs and professional careers (Baron & Salzer, 2000; Bond et al., 2001).

Brief history of supported education

Supported Education programs, services that assist consumers to gain access to and complete postsecondary education, are a recent phenomenon. In the early 1980s the concept of supported education was developed in response to the growing number of young adults who did not want to participate in traditional day treatment programs with older, “chronic” patients (Unger & Anthony, 1984). At that same time, it was clear from numerous research studies that despite severe psychiatric symptoms, consumers could learn new skills (Unger, 1998).

Concurrently new medications were being developed that made it possible for people to have more control over their symptoms. And finally, the Americans with Disabilities Act (1990) was enacted and reinforced existing legislation making it illegal to discriminate based on a psychiatric disability.

These factors came together at a time when the medical model of mental illness was being challenged by the rehabilitation approach. The rehabilitation approach postulated that disabilities resulting from a psychiatric diagnosis could be compensated for with accommodations, skill training, and supports. Mental illness was no longer seen as a downward trajectory but rather as a potential life-changing condition that one could adjust to and move forward from. In the past several decades, the rehabilitation approach has been replaced by the philosophy of recovery.

With each step forward, from a medical illness model, to a rehabilitation approach, to a recovery philosophy, mental illness is seen in a broader and increasingly optimistic perspective. With proper, timely interventions, and the support and maintenance of important roles like student, worker, friend, and family member, etc., many people with a diagnosis of a mental illness can expect to live a normal life.

Supported Education can contribute in a very meaningful way to ensure that developmental steps can be mastered and consumers can go forward to develop careers or qualify for meaningful work, thus decreasing the possibility that they will suffer the economic hardship and deprivation that has often accompanied the diagnosis in the past.

Implementation models

As Supported Education matured, the concept was disseminated and new programs were developed. The design of the programs varied depending on where the programs were implemented and what services were provided.

Three implementation models of Supported Education emerged that are related to where and how services were provided. Each implementation model embodies the mission and key elements of Supported Education.

Three Implementation Models of Supported Education	
Self-contained classroom	Students attend classes at an education program site in a self-contained classroom with other students who are also characterized as people with psychiatric disabilities. The curriculum is set, and all students receive the same instruction in the same classroom. The students are not initially integrated into regular classes, but they may participate in the activities and use the resources of the institution. However, support is available from program staff for students as they progress and move into regular classes. Education specialists may be from the sponsoring program or the academic institution.
Onsite support	Students attend regular classes in the education program in which they are matriculated and for which they receive credit. An education specialist has an office on the campus or program site from which they provide support services. They work exclusively at one site.
Mobile support	Similar to the onsite support model, students attend the college and classes of their choice. However, education specialists have an office at a community mental health agency. They provide support to the student wherever it is needed. The education specialist travels and meets the student in the mental health agency, in the community, or at the campus or educational program site.

Similarities and Differences of the Implementation Models			
	Self-Contained Classroom	Onsite Support	Mobile Support
Where	Services provided at education program or mental health center	Services provided at education program	Services provided where needed
Type of Service	Established curricula Instruction	Enrollment assistance Accommodations Follow-along support	Enrollment assistance Accommodations Follow-along support

The Evidence

Program outcomes

Boston University was instrumental in beginning and evaluating the first formal Supported Education program. Fifty-two students attended a series of classes on the campus for three days, 2 and 1/2 hours per day for four semesters. Course content included exploring vocational potential, researching occupational alternatives, individualized career planning, and mobilizing personal skills and supports.

In an analysis of outcome data (Unger, Anthony, Sciarappa, & Rogers, 1991) the authors reported that participants had significant increases in pre-post class enrollment and competitive employment. After the intervention, 42 percent of the total sample were competitively employed or enrolled in an education program, compared to 19 percent before the intervention. Decreased rates of hospitalization and increased self-esteem were also reported. The gains were maintained over time as indicated by a later follow-up study (Ellison, Danley, Bromberg, & Palmer-Erbs, 1999).

Hoffman and Mastrianni (1993) investigated the efficacy of Supported Education by comparing treatment outcomes in two young adult inpatient settings: one a specialized inpatient supported education service, the other a more traditional approach to inpatient treatment. Results showed that consumers participating in Supported Education sustained stronger student identities, returned to college at higher rates, maintained higher academic aspirations, and reported greater ease in the transition to more normative settings following hospitalization.

Cook and Solomon (1993) reported successful outcomes for consumers who participated in the Thresholds Community Scholars Program. Students (n = 125) completed an average of 3.6 classes per semester. Ten students received degrees, ranging from A.A. degrees to an M.A. degree. Two others completed training programs. The authors also reported substantial employment gains reflected in the number of consumers who were working on their own in independent employment and significantly higher levels of self-esteem and coping mastery, but not increased levels of anxiety.

Parten (1993) described a four-site study within the California Community College System designed to examine student and college needs related to access for students with psychiatric disabilities. A concern was students with mental illnesses would require more services and be more disruptive than other students with disabilities. The study task force found students with mental illnesses who requested educational accommodations were, in fact, qualified to receive the services; they seldom requested services that were considered inappropriate.

In response to the issue of student disruption, the crisis services put in place were underutilized. Neither statistical nor narrative reports substantiated the concerns that students with mental illnesses were more disruptive than other students.

Parten also reported that dropout rates for Supported Education consumers (n = 209) were 14 percent among new students and 21 percent among continuing students. This compared favorably with data drawn from the Chancellor's Office in the same year indicating a 16.4 percent dropout rate for the entire student body.

Unger, Pardee, and Shafer (2000) reported on a three-site study that examined education and employment outcomes for postsecondary students with mental illnesses who received Supported Education services. Study participants ($n = 125$) attempted an average of 7.10 credits per semester and completed an average of 6.34 credits, a completion rate of 90 percent. The students maintained a grade point average of 3.14 (on a 4-point scale). Their retention rate was similar to that of other part-time students.

During the course of the 3-year study, 20 percent of the students completed degrees or certificate programs. Employment for all students remained at 42 percent throughout the study period. A major goal of the research was to determine if Supported Education services led to work that reflected the consumers' education levels. Fifty percent of the students indicated that their job did fit their education level, and 57 percent indicated that their education prepared them for their job. There was an improvement in the job/education fit (work reflecting the education level) over time.

In another article using the same research data, Unger and Pardee (2002) found that outcomes in employment, school completion, self-esteem, and quality of life did not differ significantly across three Supported Education programs located in three diverse locations (clubhouse, mental health agency, community college). Using different models of Supported Education, (self-contained classroom, onsite support, and mobile support) each adhered to very similar principles and practices, and achieved similar results.

Postsecondary education completion

Although students may go back to school for a number of reasons, most return to improve their job or career opportunities. However, it is not uncommon for students to drop out or “stop out” while completing their education plan.

In a qualitative study of 24 students, (Weiner & Wiener, 1997) the authors reported that students withdrew from college because of the severity of their illness, regardless of the provision of appropriate educational accommodations. Completing tests, writing papers, keeping up with the class work, financial constraints, meeting new people, crowds, large class sizes, and little involvement with faculty all contributed to the decision to withdraw.

Factors that contributed to staying in school included meaningful and consistent involvement with the mental health system, assistance with admission and readmission, reduced course load, access to a peer support group, having an academic advisor and personal counselor, financial aid, campus orientation, and learning skills workshops.

In another qualitative study of 35 students (Megivern, Pellerito, & Mowbray, 2003), the authors reported that problems related to completion were most frequently mental health (85.7 percent), academics (60 percent), and finances (51.4 percent). Twenty percent said that psychiatric symptoms were potentially problematic but environmental supports (such as positive teachers, mental health treatment, or a college study group) prevented symptoms from actually interfering with academics.

The most frequently cited reason for leaving college was psychiatric symptoms (43 percent). Nearly two-thirds of this sample enrolled in college at least three times and intended to continue. There was also a statistical trend toward those who utilized mental health services during college completing more semesters than those who did not use services.

From the perspective of postsecondary education institutions, another picture emerges. A University of Minnesota research team conducted 39 focus groups at 13 colleges and universities across the United States with 282 participants (Blacklock, Benson, & Johnson, 2003). The results identified barriers to full college participation as the following:

- Stigma, both internal and external;
- Managing the complex nature of the psychiatric illness as a student;
- Limited student resources, including adequate insurance, and the necessity to work;
- Limited access to information about campus resources and their own illness; and
- Organizational and institutional barriers including lack of service coordination, professors' teaching style, and safety and classroom management issues.

Unger, Pardee, and Schafer (2000) found that transportation and number of psychiatric hospitalizations were predictors of college completion; psychiatric diagnosis was not.

Examining characteristics that predicted successful outcomes in Supported Education, Collins, Mowbray, and Bybee (2000) found that productive activity at baseline, marital status, financial resources, and social supports were factors related to productive activity. Psychiatric diagnosis, symptoms, and length of illness were not related to productive activity.

In a meta-analysis, Smith-Osborne (2005) found that the type and severity of disorder and the productive leave and reentry procedure of the educational institution were the strongest predictors of educational achievement. Participation in a Supported Education program and the use of on-campus mental health services upon reentry to college approached statistical significance.

Increased need for Supported Education programs

In a recent survey, the School of Social Work, University of Michigan identified over 100 Supported Education programs nationwide (Mowbray, Megivern, & Holter, 2003).

Over the past decade more consumers have been returning to education programs. This is reflected in data from colleges and universities indicating there is an increase in the number of students seeking treatment at college counseling centers who are already taking psychiatric medications (Anxiety Disorders Association of America, 2006).

Other authors report increases in the number of students presenting chronic mental illness, suicidal and other self-injurious behavior, personality disorders, sexual assault and early traumatic experiences (Beamish, 2005; Arehart-Treichel, 2002). The American Psychiatric Association has targeted college mental health as a serious issue, launching its first public awareness campaign on college mental health in fall 2005, repeating it again in 2006 (Bender, 2006).

The increasing trend for young people with mental illnesses to attend college or other education programs indicates that the students are recognizing that postsecondary education is a viable option for them. It reflects a decrease in stigma and a growing awareness that a mental illness need not limit their aspirations for a meaningful career. However, at this time in our history, most education institutions are ill equipped, and often lack the resources, to provide the treatment and support these students require.

There is clearly a need for mental health programs to step up to the plate to initiate programs, both mobile and/or onsite to enhance the student's ability to complete their education. Collins and Mowbray (2005) reported although many campuses have some services available, students were often reluctant to ask for accommodations because of the fear of disclosure and stigma, and Disability Service staff felt they did not have training or adequate knowledge about psychiatric disabilities. Another theme that emerged was the importance of collaboration among all service providers to best support the students.

Consumers who received both vocational and psychiatric services and had frequent interaction with providers had significantly better Supported Employment outcomes (Cook, Lehman, et al., 2005). Similarly, the research suggests that the students who are able to maintain contact with mental health services have a higher retention rate than those who do not (Weiner & Wiener, 1997; Megivern, Pellerito, & Mowbray, 2003). Collaboration between education programs and mental health agencies can strengthen the support network for students so they may become fully integrated into the community, develop careers, and find meaningful work.

Employment and education

Until recently there has been a paucity of published information about the correlation between employment and education for adults with mental illnesses. However, the Subcommittee on Employment and Income Supports of the President's New Freedom Commission on Mental Health, *Achieving the Promise: Transforming Mental Health Care in America: Final Report* (2003) indicated:

Problems begin long before consumers enter the work force. Many individuals with serious mental illness lack the necessary high school and postsecondary education or training that is vital to building careers (p. 34).

An update on the *Report for the President's New Freedom Commission* (Cook, 2006) and analysis of employment barriers for consumers indicated again that low educational achievement was one of the barriers to paid work. Similar results were reported in a multisite research and demonstration project that identified demographic characteristics associated with employment outcomes. The study found that consumers with more recent work history, younger age, and *higher education* (this author's italics) were more likely to achieve competitive employment, and work more hours (Burke-Miller et al., 2006).

Many consumers aspire to more than entry-level employment (O'Day, Killeen, & Goldberg, 2006; Russinova, Wewiorski, Lyass, Rogers, & Massaro, 2002), and many achieve it. A qualitative study of 30 consumers found that 20 worked in white collar or professional jobs, including engineering, journalism, accounting, and graphic design, and 10 held blue-collar or service jobs. Consumers in this study had been employed from 3 to 33 years and earned from \$6,000 to \$60,000 (O'Day, Killeen, & Goldberg).

Data from the *National Health Interview Survey on Disability* (NHIS-D) 1994–1995, in which 66,227 respondents reported on 120,216 household members ages 18–65, supports this qualitative research data. Analysis indicated that 76 percent of those surveyed were employed. Those who described themselves as having any mental illness had an employment rate of 48 percent; those with a serious mental illness had an employment rate of 37 percent; and those with schizophrenia and related disorders had an employment rate of 22 percent (Mechanic, Bilder, & McAlpine, 2002).

This study also found that persons with mental illnesses hold occupational rank in executive, administrative, managerial, or professional specialty occupations. Post-college education, compared with having less than a high school education, increased the odds of having a high-level job 26 times for people with serious mental illnesses and 43 times for people with any mental illness. The authors commented:

It would be useful to help clients to complete their education as part of the larger effort to manage illness so as to prevent secondary impairments, including the inability to work (Mechanic, Bilder, & McAlpine, 2002, p. 252).

The authors also noted that one of the factors that limit consumer engagement in higher occupational categories is that many mental health employment programs focus their efforts on placing consumers in unskilled and semiskilled positions.

Returning to an education program or postsecondary education to prepare for a career can be a challenge for many consumers. However, where Supported Education programs have been implemented, significant effects on employment have been noted.

In a paper presented at a conference sponsored by the National Research and Training Center on Psychiatric Disabilities (Leff & McPartland, 1998), the researchers examined the relationship between quality of care and career outcomes for service

recipients in a public mental health system. The authors noted that Supported Education is a consistently significant predictor of employment outcomes across populations. It was a more significant predictor than supported employment, skills training, vocational assessment, or participation in a psychosocial clubhouse.

Further research needed

Current evidence indicates that Supported Education is a promising practice that warrants additional research to validate and expand existing knowledge. These questions are key to building the current evidence base:

- What measures indicate successful outcomes in Supported Education?
- What services are most effective in promoting positive education outcomes and what is their availability and level of utilization?
- What factors predict successful completion?
- What secondary benefits does participation in Supported Education programs promote?
- How does Supported Education participation affect employment outcomes over time?
- What are the costs/benefits of Supported Education?

The Supported Education KIT has been written to standardize practice and to promote the development and evaluation of this promising practice so it can become an evidence-based practice. Please share your experience in using these materials. Feedback from users will help refine and improve future versions of these implementation materials.

The following selected bibliography includes a broad sampling of additional literature and resources that are currently available about Supported Education.

The Evidence

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The Evidence

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