

ARTICLE

**Individual Placement and
Support for Individuals with
Recent-Onset Schizophrenia:
Integrating Supported Education
and Supported Employment**



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Objective: *To describe the adaptation of the Individual Placement and Support model of supported employment to individuals with a recent first episode of schizophrenia or a related psychotic disorder.*

Methods and Results: *Given that the vocational goals of persons with a recent onset of schizophrenia often involve completion of schooling rather than only competitive employment, the principles of Individual Placement and Support were extended to include supported education. This extension involved initial evaluation of the most appropriate goal for individual participants, having the IPS specialist working on placement either with the participant or directly with educational and employment settings (depending on permitted disclosure and individual need), and follow-along support that included work with teachers and aid in study skills and course planning as well as typical supported employment activities. Work with family members also characterized this application of IPS. A randomized controlled trial is comparing the combination of IPS and skills training with the Workplace Fundamentals Module with the combination of brokered vocational rehabilitation and broad-based social skills training. Participants in the IPS condition have returned to school, competitive work, and combined school and work with approximately equal frequency.*

Conclusions: *IPS principles can be successfully extended to integrate supported education and supported employment within one treatment program. The distribution of return to school, work, or their combination in this group of individuals with recent-onset schizophrenia supports the view that an integrated program of supported education and supported employment fits this initial period of illness.*

Keywords: *supported education, supported employment, schizophrenia, rehabilitation*

Introduction

In recent years, functional outcome has become a very salient target for intervention for individuals with severe mental illnesses. In particular, supported employment has generated substantial research as a means of facilitating return to competitive jobs for individuals with schizophrenia and other severe mental illnesses. Supported employment emphasizes competitive employment rather than volunteer or sheltered job settings, rapid search for a job, integration of mental health and vocational services, attention to preferences of participants, and ongoing employment support (Becker & Drake, 2003; Bond, 2004; Bond et al., 2001; Cook & Razzano, 2000). More than a dozen controlled studies indicate that supported employment can increase the rate of competitive employment for individuals with severe mental illness as compared to traditional vocational rehabilitation services (Bond, 2004; Drake et al., 1999; Drake, McHugo, Becker, Anthony, & Clark, 1996; Lehman et al., 2002; Mueser et al., 2004; Twamley, Jeste, & Lehman, 2003).

The most commonly implemented and studied model of supported employment for persons with psychiatric disabilities is Individual Placement and Support (IPS) (Becker & Drake, 2003). Participants are helped with a rapid job search by a treatment team that unites mental health professionals with employment specialists. The close clinical-vocational collaboration allows information about work problems, any unusual stressors at work, and symptoms in the workplace to be communicated by the employment specialist to the other treatment team members to allow psychiatric treatment to be tailored to optimize work functioning. The level of assistance in finding employ-

ment depends on the needs of the individual, and can range from coaching a participant on how to apply for a job, to actually securing work on behalf of the individual, and, with the participant's permission, contacting the employer to provide education about major mental disorders and guidance in supervising such employees.

The focus in studies of supported employment thus far has been on chronically ill individuals, typically those whose psychiatric disorders started 10-20 years prior to participation in supported employment programs. The good symptomatic recovery typical of the initial period of schizophrenia (Lieberman et al., 1992; Nuechterlein et al., 1992; Nuechterlein et al., 2006) may offer an opportunity to intervene even more effectively in an attempt to prevent the development of chronic work disability. Individuals who remain in treatment following a recent initial onset of schizophrenia have been found to experience substantial periods of remission of psychotic symptoms in a majority of cases (Nuechterlein et al., 2006). In our experience, young people with a recent onset of schizophrenia also resist the notion that they have a disability and are, with few exceptions, very interested in returning to work or school. Indeed, long-established periods of disability that might make return to work more difficult are not an issue during this period. Thus, the aims of IPS are closely allied with the participants' typical goals during this early period of the disorder. Although good symptomatic recovery is often obtained during this initial period, the processes that lead to symptomatic recovery may be only weakly connected to factors that predict and influence work recovery (Brekke & Long, 2000; Strauss & Carpenter, 1977). Numerous psychosocial obstacles and cognitive deficits make return to work or school difficult

even with good symptomatic recovery. Thus, in our recent work at the UCLA Aftercare Research Program, we have focused on adapting the IPS model for individuals with a recent onset of schizophrenia.

This article summarizes the design of an 18-month longitudinal study of IPS in the early course of schizophrenia, "Improving and Predicting Work Outcome in Recent-Onset Schizophrenia," and discusses the adaptations of the IPS model that we found important for this phase of the illness. The participants were randomly assigned to either an 18-month IPS intervention or to vocational rehabilitation through referral to traditional separate agencies (Brokered Vocational Rehabilitation). These individuals were typically in their 20's and had often been in the midst of their education at the time of their initial psychotic episode. In order to allow these individuals to return to school or work, depending on what fit their individual circumstances best, we extended IPS to include both supported education and supported employment. Thus, participants were helped to complete their education, to obtain competitive employment, or both. As we describe in this article, we adapted prior work on supported education (Egnew, 1993, 1997; Unger, 1998) to the IPS principles such that the whole program met the standards for IPS fidelity. Thus, for example, the IPS principle of rapid job search was modified to be a rapid search for a job or rapid return to relevant schooling.

Methods and Results

Participants

The sample consisted of 69 individuals that were recruited from a variety of local Los Angeles area psychiatric hospitals and psychiatric clinics and through referrals from the UCLA outpatient service at the Resnick

Neuropsychiatric Hospital at UCLA. All study participants were receiving outpatient psychiatric treatment at the UCLA Aftercare Research Program and were participants in the third phase of the Developmental Processes in Schizophrenic Disorders Project (PI: K. H. Nuechterlein). Typically the outpatient psychiatric treatment involved clinic visits one day per week in which the various interventions described below were provided. This study was approved by the UCLA Institutional Review Board. All participants were provided with oral and written information about the research procedures involved in the study and gave written informed consent.

Study Inclusion and Exclusion Criteria

Entry criteria were: 1) a recent onset of psychotic illness, with the beginning of the first major psychotic episode occurring within the last 2 years; 2) a diag-

nosis by Research Diagnostic Criteria (RDC) (Spitzer, Endicott, & Robins, 1978) of schizophrenia or schizoaffective disorder, mainly schizophrenic subtype; 3) between 18 and 45 years of age; 4) no evidence of a known neurological disorder; 5) no evidence of significant and habitual drug abuse or alcoholism in the 6 months prior to hospitalization, no evidence that the psychosis is accounted for by substance abuse, and no evidence that substance abuse will be a prominent factor in course of illness; 6) no pre-morbid mental retardation; 7) sufficient acculturation and fluency in the English language to avoid invalidating research measures of thought, language, and speech disorder, verbal abilities, and attitudes toward psychiatric illness; 8) residence within commuting distance of the UCLA Aftercare Program; 9) interest in trying to resume work or school; and 10) given that the initial standard-

ized antipsychotic medication was risperidone, treatment with this medication should not be contraindicated.

Clinical and Demographic Characteristics

As determined by the Structured Clinical Interview for DSM-IV (SCID; First, Spitzer, Gibbon, & Williams, 2001) and informant information, the entry RDC diagnosis distribution was 83% schizophrenia, 14% schizoaffective disorder, depressed type, mainly schizophrenic, and 3% schizoaffective disorder, manic type, mainly schizophrenic. The mean age at study entry was 25.2 years (*SD*=4.0), 67% were male, and the mean educational achievement was 13.2 years (*SD*=1.9) years. Thus, the participants were of an age, educational achievement, and gender distribution typical of individuals with a first episode of psychosis.

TABLE 1—DEMOGRAPHIC DATA FOR INDIVIDUALS WITH SCHIZOPHRENIA WHO ENTERED (N=69) AND DID NOT ENTER (N=18) THE WORK OUTCOME STUDY

	Individuals who were randomized (n=69)	Individuals who were not randomized (n=18)		
Age at entry	25.2+/-4.0	23.7+/-3.8	t(70)=1.3	p =.18 NS
Sex (% male)	67%	50%	χ ² (1)=1.7	p =.20 NS
Marital Status				
Single	93%	94%		
Married	3.5%	6%		
Separated	3.5%	0%	χ ² (2)=1.2	p =.54 NS
Race/Ethnicity				
White	29%	35%		
Asian or Pacific Islander	15%	20%		
Black	20%	20%		
Hispanic	23%	10%		
Other	13%	15%	χ ² (4)=2.1	p =.72 NS
Education (yrs)	13.2+/-1.9	13.1+/-2.4	t(75)=1.3	p =.23 NS
Highest parental education (yrs)	14.6+/-3.7	15.9+/-3.3	t(85)=.23	p =.82 NS

TABLE 2—PRIOR ILLNESS AND SYMPTOM SEVERITY FOR INDIVIDUALS WITH SCHIZOPHRENIA WHO ENTERED ($N=69$) AND DID NOT ENTER ($N=18$) THE WORK OUTCOME STUDY

	Individuals who were randomized ($n=69$)	Individuals who were not randomized ($n=18$)		
Total time ill, including prodromal symptoms (months)	24.6+/-34.5	18.5+/-14.3	$t(85)=-.73$	$p=.47$ NS
No. of psychiatric hospitalizations	1.2+/-0.9	1.6+/-1.6	$t(85)=1.3$	$p=.20$ NS
Positive symptoms (BPRS Thinking Disturbance sum)	10.3+/-4.3	10.1+/-4.7	$t(87)=0.16$	$p=.88$ NS
Negative symptoms (BPRS Withdrawal-Retardation sum)	7.4+/-3.8	7.8+/-4.5	$t(87)=0.39$	$p=.67$ NS
BPRS Anxiety- Depression sum	7.9+/-4.2	7.1+/-4.3	$t(87)=0.77$	$p=.44$ NS

At study entry, the study sample had a mean total illness duration including prodromal symptoms of 24.6 months ($SD=34.5$) and a mean of 1.2 psychiatric hospitalizations ($SD=0.9$). The expanded 24-item version of the Brief Psychiatric Rating Scale (BPRS) (Ventura et al., 1993) was used to monitor symptom severity, with each item rated from 1 to 7. At screening for entry, the mean BPRS Thought Disturbance factor sum (Unusual Thought Content, Hallucinations, and Conceptual Disorganization) (Overall, Hollister, & Pichot, 1967) was 10.3 ($SD=4.3$). The mean Withdrawal-Retardation factor sum (Blunted Affect, Emotional Withdrawal, and Motor Retardation) was 7.4 ($SD=3.8$), and the mean Anxiety-Depression factor sum (Anxiety, Depression, and Guilt) was 7.9 ($SD=4.2$). These mean values indicate that, at the time of the entry diagnostic assessment, the participants were usually psychotic and many had negative symptoms and anxiety/depression.

Comparison of Randomized and Nonrandomized Groups

Eighteen people consented to participate in the study and met entry criteria, but did not remain in the protocol long enough to be randomized to either IPS

or the Brokered approach. A comparison of individuals who were randomized ($n=69$) to IPS or the Brokered treatment with those who were not randomized ($n=18$) reveals no statistically significant demographic differences between the two samples (see Table 1). Similarly the randomized individuals did not differ significantly from those who were not randomized in prior illness indicators or symptom severity at screening (see Table 2).

Interventions

In this recently completed 18-month longitudinal study, all participants were provided treatment with antipsychotic medication, regular psychiatrist visits, and individual case management and therapy by a Master's level therapist. The popular second-generation antipsychotic medication, risperidone, was used as the first line medication to standardize initial conditions so that the effects of predictive factors and psychosocial interventions could be more clearly evaluated. (If an inadequate response to risperidone or intolerable side effects was observed, study psychiatrists then prescribed another second-generation antipsychotic medication.) Because the participants of this study, unlike prior IPS studies,

were typically entering the outpatient program while still in a psychotic state at the end of an acute episode, a clinical stabilization period was deemed necessary before IPS or the comparison vocational rehabilitation treatment were initiated. After this initial 2–3 month period to allow clinical stabilization from the psychotic episode, the participants were randomly assigned to either the IPS intervention condition or to the Brokered Vocational Rehabilitation condition (vocational rehabilitation through referral to traditional outside agencies) in a 2/3 vs. 1/3 ratio (N s of 46 and 23, respectively). Because the adaptation of IPS is described in detail in later sections, first we focus on the other interventions that were components of the randomization.

Workplace Fundamentals Module

In this protocol, IPS was coupled with the Workplace Fundamentals Module (WFM) training program, a group skills training approach that has the complementary goal of teaching the social and problem-solving skills necessary to keep a job (Wallace & Tauber, 2004). The use of the WFM with IPS is not part of the original IPS model, but was included in this case in an attempt to in-

crease the impact of the intervention on the duration of a job or schooling. Job seeking and other IPS activities occurred at the same time as WFM group training, so the two treatments were paired within one treatment condition and in time.

WFM group training was provided in nine skill areas: (1) knowing how work changes your life; (2) learning about your workplace; (3) identifying your stressors; (4) learning to solve problems; (5) managing your symptoms and medications on the job; (6) managing your health and avoiding substance abuse; (7) improving your job performance; (8) socializing with co-workers; and (9) finding support and proper motivation. Each skill area involves an introduction, videotaped demonstration of the specific skills, role played practice, generation and evaluation of solutions to resource management problems, generation and evaluation of solutions to outcome problems, completion of in-vivo assignments, and completion of homework assignments. Each week for 6 months the participants were scheduled to attend two 75-minute groups on the same day, followed by 12 months of sessions on a fading frequency schedule. The IPS worker would typically reinforce material from group WFM sessions by using it in the context of individual IPS meetings.

Brokered Vocational Rehabilitation

For the one-third of the participants who were randomly assigned to the Brokered Vocational Rehabilitation (BVR) condition, referrals were made to traditional vocational rehabilitation services at separate agencies. The UCLA Aftercare Program case managers had community linkages with the State Department of Vocational Rehabilitation, Southern California Regional Occupational Center, disability programs in local colleges, commu-

nity-based transitional living centers, state and federal financial aid agencies, and volunteer service organizations. The individual case manager discussed the range of options with each participant and agreed upon appropriate directions for rehabilitation. Thus, participants in this comparison sample received psychiatric treatment that fully paralleled that of the participants in the IPS/WFM intervention, except that the vocational rehabilitation services were primarily through referrals to separate vocational services agencies.

To parallel the involvement of the IPS/WFM group in the WFM group skills training, these individuals with schizophrenia participated in skills training groups for the same amount of time as the WFM, but the groups did not focus on work settings and work skills. Their skills training included medication management training and communication skills training using methods that were similar to WFM.

Adapting IPS to Recent-Onset Schizophrenia

School vs. Work as an IPS Goal. Since one of the basic principles of IPS is to attend to the preferences of the individuals being served, we deemed it essential to allow our participants the option of returning to school or a job, depending on which of these goals best fit their individual situations. Given that the first episode of schizophrenia typically occurs from the late teens through the mid-20s, it is very common for this episode (or its prodromal symptoms) to interrupt an ongoing educational experience. Thus, for some individuals with a recent onset of schizophrenia, the developmentally appropriate vocational step is to resume that educational goal, while for others a competitive job is more appropriate.

In our sample of individuals with a recent first episode of schizophrenia, we found that the flexibility to orient IPS toward return to either school or jobs or both worked well. Of the individuals who successfully returned to school or competitive jobs within our IPS/WFM group, we found that 36% selected school alone, 31% selected jobs alone, and 33% returned to both school and jobs. Amongst those who did both during the course of the study, most started with school and then added a part-time job (85% of this subsample), while starting with a job and adding schooling was infrequent.

Selection of Educational Programs and Jobs. Consistent with the IPS principle of attention to the individual's preferences, we did not use a one-school-fits-all or one-job-fits-all approach. Instead, the IPS specialist assisted the participants in enrolling in school programs that were consistent with individual preferences, interests, future work goals, and any previous educational successes and challenges. Our participants enrolled in a range of programs, including General Educational Development (GED) credentialing programs or vocational schools (20%), community colleges (60%), or four-year colleges (20%). Similarly, our participants obtained a variety of jobs in various settings, contingent on their interests, abilities, and prior work experiences. Examples include custodian, movie usher, animal care worker, restaurant cook, copy store clerk, research assistant, salesclerk, laboratory technician, engineer, and administrative assistant.

Avoiding Time Conflicts between Psychiatric Treatment and School/Work. Because individuals who have a recent onset of schizophrenia are typically quite motivated to return to school or work, an ironic complication of the rapid return that is facilitated by IPS is that some will conclude

that they do not have time to participate in ongoing psychiatric treatment. The frequent lack of insight into having a psychiatric disorder during this initial period of illness further encourages this tendency to discontinue treatment. Discontinuation of medication and other psychiatric treatment, however, is highly likely to lead to a return of psychotic symptoms (Gitlin et al., 2001; Robinson et al., 2002) that could be disruptive to schooling or a competitive job.

Our experience has been that most individuals with a recent onset of schizophrenia enroll in school or return to a job part-time, as the illness often does not allow them to return to full-time school or employment, at least not immediately. Thus, they are usually able to arrange coursework or work hours that do not interfere with attending treatment at the clinic. Given that the IPS worker typically assists the participant in arranging a class or work schedule, time conflicts with clinic treatment can usually be preempted. The outpatient treatments and assessments in this study, including group skills training, involved 4-6 hours on one day weekly, so it was usually possible to avoid time conflicts. However, facilitating return to school or work entails recognition by the clinic staff that this goal may involve flexibility in treatment scheduling. In some instances, clinic treatment contact needed to be reduced or moved into late afternoon hours to accommodate a participant's work or class schedule.

Adapting to the Permitted Level of Disclosure. The level of disclosure that is comfortable for the individual with schizophrenia influences the methods used by the IPS specialist. While this contingency applies to those with chronic illnesses as well as those with a recent onset of illness, in our experience people are particularly sensitive about disclosure of illness or disability

early in their illnesses. At entry into this study, only about one-quarter of the participants were receiving disability funds from either the state or the Social Security Administration, and most did not consider themselves to be disabled. We sought to encourage the perception of participants that they could return to work or school, and did not encourage applications for disability funding unless it was needed to obtain funds for housing or health insurance. Thus, issues of being identified by oneself or by others as disabled are understandably sensitive and complex ones at the beginning of a schizophrenic illness.

Our informed consent forms recognized this issue by including options for approving the amount of contact with work supervisors and teachers. The forms also provided options for several levels of disclosure to work supervisors and school instructors, ranging from no disclosure of information to disclosure of a disability to full disclosure of psychiatric condition if viewed as helpful by the IPS specialist. We found that participants varied widely in the level of contact and disclosure that they approved and that they moved toward greater comfort with contact with employers and teachers over the course of the 18-month study. At the initial consent point upon entry into the outpatient clinic, 28% (13 of 46) prohibited all contact with employers and teachers, 31% (14 of 46) permitted discussion of job or school performance with employers or teachers, and 41% (19 of 46) permitted both discussion with employers and teachers and observation of job or school performance. At this same initial point, 54% (25 of 46) of participants prohibited any disclosure of disability or psychiatric condition to employers or schools, 20% (9 of 46) approved disclosure of a disability but not a specific psychiatric condition, and 26% (12 of

46) approved disclosure of their psychiatric condition. By the time participants finished their 18 months working with the IPS specialist, 74% (34 of 46) approved and received direct IPS help in the community. As discussed further below, we found that disclosure of a disability directly to employers and teachers was only infrequently necessary (26%, or 12 of 46), so the lack of approval of such disclosures did not greatly restrict the work of the IPS specialist.

We limited inadvertent disclosure by having our IPS specialist identified on her business card with the generic title of "Vocational/Educational Specialist" and by identifying the program as the "Work Outcome Program" at UCLA. For participants who are not comfortable with disclosing to a teacher or employer any information about their disorders and treatments, the IPS specialist needs to work "behind the scenes." If the individual consents to such disclosure, the IPS specialist can work "on the front lines." Here we will focus on the procedures used for supported education, as these will be less familiar to most readers than the strategies of supported employment.

When working behind the scenes in supported education, the IPS worker can assist the participant in a number of ways. The first step involves assessing the prior school history. We found it quite helpful to obtain school records and transcripts so that strengths and weakness could be identified. Reviewing these records with the participant allows one to understand how the psychiatric disorder impacted school performance. It is useful to identify any classes that were dropped or not completed. A next step is to assess the participant's current goals. One cannot assume that continuing with the previous education plan is the appropriate goal for any specific indi-

vidual with schizophrenia. We found that many participants who were in high school at the time of their first psychotic episode chose to continue to pursue their high school education by taking high school classes through an adult school program or an independent study program. Others chose to pursue a vocational degree.

If a participant is comfortable with disclosure, additional supported education steps are possible. First, it is important that the IPS specialist and the individual with schizophrenia reach an agreement regarding what will be communicated to the instructor or others at the school. The IPS specialist also needs to determine whether the participant is comfortable with having the IPS specialist contact the Disabled Student Services office at the school, the instructor, or both. To respect the participant's preferences and right to confidentiality, and to build rapport, in our project the IPS worker role-played with the participant beforehand the ways that she would talk to an instructor.

For individuals with schizophrenia who agree to use the Disabled Student Services office at a school, we found it very useful to contact this office prior to the first day of class rather waiting until a problem occurs. In some instances, an individual will provide permission for the IPS worker to assist in obtaining a disabled student services plan, but not permit the IPS worker to communicate directly with instructors. In this situation, it is important for the IPS worker to communicate all the potential needs of the participant to the Disabled Student Services staff members, who are required to keep student's disabilities confidential.

In situations in which the individual with schizophrenia permits the IPS worker to communicate directly with instructors, the IPS worker does not nec-

essarily need to disclose the specific disability. In our project the IPS specialist rarely disclosed the disability to an instructor, but instead educated the instructor about how supported education can assist students who are entering or returning to school. For example, our IPS specialist indicated that she could assist in organizing school schedules and the amount of needed study time. Many instructors provided positive feedback, indicating that such a program would probably benefit many students in their initial studies at their schools.

We found that our participants varied in the degree of intervention provided by the IPS specialist to help them to enroll in school or to obtain a job. For 26% of participants ($n = 12$), "behind the scenes" assistance was provided, such as counseling about where to apply for work or school, or help with their resumes or applications. For the other 74% of individuals ($n = 34$), more aggressive "front line" interventions were provided, such as setting up the job interview with the potential employer, contacting schools to help complete the admissions process, transporting the participant to an interview, or sitting in on the interview.

Follow-Along Support in Educational Settings. After successfully enrolling an individual with a recent onset of schizophrenia in school, the role of IPS is far from over. Follow-along support is individualized and may include transportation, advocacy, providing additional information to the teacher, and counseling the participant about school relationships. The IPS specialist and the other treatment team members attempt to anticipate potential problems and to intervene appropriately. For example, it is important to make sure that the participant buys the necessary books for each class, which might require a joint trip to the

bookstore. The individual with schizophrenia might require help to locate the classroom, or the IPS specialist may even take the individual to the classroom in advance of the first day to become acclimated to the setting. It might be necessary to help the participant to prepare an introduction to the instructor and to practice ways to make small talk with fellow students. Helping the individual with schizophrenia to review the class syllabus in order to plan a studying schedule was often very useful. The IPS worker can also help the participant to plan how to complete assignments on time, particularly if multiple courses involve assignments that are due close together in time. It is useful for the IPS specialist to ask enough in-depth questions to confirm that the individual with schizophrenia comprehends the material, and to review any graded material as an additional check on progress in each course.

Assistance with study habits was also found to be a key component of supported education. The cognitive deficits associated with schizophrenia often lead to difficulties with concentration, learning new information, and adapting this information to other contexts (Goldberg & Green, 2002; Nuechterlein et al., 2004). Individuals with a recent onset of schizophrenia are often starting college for the first time and have not developed study skills, such as highlighting important text, using flash cards, taking practice quizzes, or utilizing different mnemonic tools in order to retain critical information. An IPS worker can help the participant to acquire study skills, can provide positive and specific feedback about progress in using study skills, and can identify areas in which the individual needs to spend more time studying.

The IPS worker might also need to coach the participant in test-taking

strategies. For instance, our IPS worker met with a professor and a participant to review the participant's multiple-choice exam. They discovered that the individual with schizophrenia knew the correct answers to many questions, but the format of a multiple-choice exam was confusing. The IPS worker and professor were then able to assist the person to learning better strategies for multiple-choice exams, which improved the ultimate course grade.

Sometimes an IPS worker needs to assist an individual with schizophrenia to drop a class in time when it is clear that the person will not pass. The IPS worker can discuss and process this situation with the individual in order to better understand what happened and how it can be avoided in future courses. This hands-on approach and monitoring can all be done behind the scenes for those individuals who are uncomfortable with disclosure. Intensive monitoring of progress within courses appears to be particularly important for individuals with schizophrenia because they often rely heavily on avoidance as a coping strategy.

If the participant has given the IPS worker permission to disclose his or her psychiatric condition to the teacher and it appears that providing this information will enhance the chances of school success, we have found the following issues may be usefully discussed with instructors: (1) allowing special consideration for students with a mental disorder; (2) balancing the need for structure with flexibility to accommodate special needs; (3) giving feedback on school performance in a gentle and informative, but non-critical manner; (4) understanding and tolerating negative symptoms; and (5) identifying side effects of medication, such as muscle stiffness, motor slowing, or restlessness. The instructors and IPS specialist can work cooperatively to en-

hance the participant's success after initial information is provided in these domains.

Working with Family Members.

Although work with family members has been a part of IPS in some prior settings, it plays a more prominent role with young people with a recent onset of schizophrenia because many are still living with their parents and most are still in weekly contact with the immediate families. We found that it was important to be open with family members about the IPS plan and to encourage their support. Family members often comment that they feel frustrated when their loved one is not participating in work or school or a having a social life. Conversely, once the individual with schizophrenia starts to be more involved in work or school, family members may become equally concerned that he or she is taking on too much. This message can be confusing to individuals with schizophrenia, particularly when the IPS worker and treatment team is conveying the importance of returning to work or school. Our treatment program typically involved a meeting between the treatment team and the immediate family in the initial days of treatment, and at any point at which a participant's goals and/or symptoms change notably. When possible, the IPS specialist also met with the participant at home, with family members present, during the process of completing work/school support in the field. Identifying the positive family influences in a person's life and working with any potential conflicting family values can enhance return to work and school. Family members can inform the treatment in a profound manner because they are typically very aware of the participant's daily schedule and typical behaviors. For example, families may help to identify a person who is struggling to wake up on time

for class, or one who is giving up on homework because of feeling overwhelmed by the material. In some cases there is a family financial need for the participant to go to work, and the family may feel conflicted about supporting the individual in returning to school. Such issues need to be addressed early in the treatment to form a positive alliance to support the individual with schizophrenia and to minimize obstacles to the individual's preferences for returning to school and choosing a preferred career path.

Discussion

While supported employment approaches, including IPS, have been evaluated primarily in samples of individuals with severe mental disorder who have been ill many years, in this article we discuss the successful adaptation of the principles of IPS to individuals with a recent initial episode of psychotic disorder. Adaptation of IPS to this early period of schizophrenia and related disorders involved recognition that appropriate vocational goals for some individuals involved return to regular schooling rather than to competitive employment, given their age and educational circumstances at onset of psychosis. Thus, the option of supported education was integrated with supported employment.

Inclusion of supported education within an IPS model involved allowance for initial evaluation of whether schooling or employment was the immediate goal, having the IPS specialist work directly with educational as well as competitive employment settings to aid placement, and follow-along support that included aid in study skills and course planning in addition to contact with teachers and employers. Work with family members was also found to play a larger role than is typical of IPS with chronically ill individuals.

The application of IPS to individuals with a recent onset of schizophrenia was evaluated in a randomized controlled trial, in comparison to treatment through referral to separate vocational rehabilitation agencies. Individuals who could be randomized to these two conditions were shown not to differ significantly in key demographic and clinical characteristics from others who dropped out of the study too early to be randomized. The participants in the IPS condition who returned to school or work showed close to an equal distribution across school only, job only, and combined school/job outcomes during the 18-month trial. Comparisons of the primary outcomes for the two treatment groups in this recently completed study are currently being completed and will be reported in a subsequent publication.

This initial randomized controlled trial of supported employment and supported education in individuals with a recent initial episode of schizophrenia did not include people who had significant and habitual substance abuse during the six months prior to entry or just prior to onset of psychotic symptoms, because substance abuse during this period often makes it difficult to know whether psychotic symptoms are due to schizophrenia or a substance-induced psychotic disorder. Since a notable proportion of individuals with a first episode of psychosis do have significant substance use disorders, further research will need to clarify whether our procedures and results generalize to those individuals.

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