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# Supported employment for patients with severe mental illness

**AUTHOR:** Robert S Kern, PhD

**SECTION EDITOR:** Stephen Marder, MD **DEPUTY EDITOR:** Michael Friedman, MD

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## INTRODUCTION

Addressing the employment difficulties of individuals with severe mental illness (SMI) has been a long-standing mental and public health problem. Studies show that only approximately 15 percent of SMI individuals are employed [1-4]. This rate stands in marked contrast to the 65 percent of SMI individuals who express a desire to work as a personal goal [5-7].

Several different vocational rehabilitation programs exist to bridge this gap. Supported employment under the individual placement and support model (SE-IPS), a vocational rehabilitation model that focuses on obtaining competitive employment via a rapid job search, has been studied extensively in controlled trials. Results consistently show superior employment rates for SE-IPS compared with alternative vocational rehabilitation services focused on prevocational training or noncompetitive work as an initial step.

This topic reviews the context, theoretical foundation, indications, components, and efficacy of SE-IPS for patients with SMI. Other psychosocial interventions for patients with SMI are reviewed separately. Cognitive-behavioral therapy and other psychosocial interventions specifically for patients with schizophrenia are also reviewed separately.

• (See "Assertive community treatment for patients with severe mental illness" and "Lifestyle interventions for obesity and overweight patients with severe mental illness".)

- (See "Approach to managing increased risk for cardiovascular disease in patients with severe mental illness".)
- (See "Assertive community treatment for patients with severe mental illness" and "Lifestyle interventions for obesity and overweight patients with severe mental illness".)
- (See "Schizophrenia in adults: Psychosocial management".)

#### SEVERE MENTAL ILLNESS

Supported employment along with other psychosocial interventions have been developed and tested for use in promoting recovery in patients with a "severe mental illness" [8]. Severe mental illness is a mental disorder that has severe symptoms and behavioral impairment, pronounced difficulty in basic life skills, and a prolonged course.

Mental disorders most commonly associated with this term include schizophrenia, schizoaffective disorder, recurrent bipolar disorder, and chronic or recurrent psychotic depression [9,10]. Certain personality disorders, posttraumatic stress disorder, and other mental disorders are sometimes included within the category. Variation in the disorders included is seen among states in the United States when the designation is used to determine eligibility for mental health care and other social services [8]. Definitions of severe mental illness typically exclude substance use disorders (as primary disorders), dementia, and intellectual developmental disorder. (See "Schizophrenia in adults: Clinical features, assessment, and diagnosis" and "Bipolar disorder in adults: Clinical features" and "Unipolar major depression with psychotic features: Epidemiology, clinical features, assessment, and diagnosis".)

## **OVERVIEW AND CONTEXT**

Supported employment is a type of vocational rehabilitation with the primary aim of assisting individuals with severe mental illness (SMI) in obtaining competitive work. Aside from supported employment, there are several other types of work readiness programs for individuals with SMI:

- Transitional work experience
- Compensated work therapy
- Incentive therapy
- Sheltered workshops
- Supervised work crews
- Community job programs

Traditional vocational rehabilitation programs include engagement in prevocational training or noncompetitive work (such as transitional work experience) as an initial step towards seeking competitive employment. Vocational rehabilitation programs differ by the type of structured work experience and the amount of staff and other supports provided.

The premise underlying traditional vocational rehabilitation is that prevocational training and experience in noncompetitive, structured, staff supported, work-type settings with other SMI individuals is necessary before taking on the demands of competitive employment and working alongside individuals from the general population.

Criticisms of this approach include the lack of research supporting the underlying principles, the lack of standardization across programs, not tailoring the prevocational work experience to the SMI individual's personal interests, and the lack of empirical evidence that these approaches lead to obtaining competitive jobs better than place-train models or other comparison vocational rehabilitation services [11-13].

The origins of supported employment under the individual placement and support model (SE-IPS) date back to the early 1990s. At present, it is the leading evidence-based vocational rehabilitation model, well supported through reviews and meta-analyses of randomized clinical trials [14-17]. There are currently over 1000 SE-IPS programs within the United States with programs in 19 other countries across Europe, Asia, and Australia as well [18].

## THEORETICAL FOUNDATION

Supported employment under the individual placement and support model (SE-IPS) is based on the premise that competitive work is inherently tied to one's identity and self-worth and is a core component of recovery from severe mental illness (SMI). Competitive work is the primary objective of SE-IPS. In general, research shows that competitive employment is associated with improvements in quality of life. Evidence also supports ties to other positive mental health outcomes as well, including reduced psychiatric symptoms, increased self-esteem, reduced stress, increased positive mood, increased socialization, and reduced stigma, though these findings are more mixed [19-23].

Prior to SE-IPS, the prevailing vocational rehabilitation approach was a "train-place" model that emphasized job training prior to competitive work. Training included participation in work-related job skills and structured work activities with other individuals with SMI prior to seeking competitive employment. In reaction to this approach, SE-IPS proposed a "place-train" model in which the search for competitive employment begins rapidly following entry into the program

and then continuous, follow-along support is provided after job obtainment. Although rapid job search was a primary early focus of SE-IPS, research findings over the years supported the inclusion of seven other core principles that now underlie implementation of the model [14]. (See 'Components' below.)

#### **INDICATIONS**

Supported employment under the individual placement and support model (SE-IPS) was designed to address the needs of individuals with severe mental illness (SMI) who are interested in competitive employment. There are no clinical, cognitive, or physical limitations that exclude SMI individuals from enrollment in SE-IPS. (See 'Zero exclusion' below.)

The only requirement is that the SMI individual expresses a desire to work at a competitive job. Motivation to work is an important consideration within the SE-IPS model. Evidence shows motivation to be a significant predictor of employment success [24-26]. It is common for many SMI individuals to express ambivalence about competitive work. The ambivalence may be driven by previous unsatisfactory work experiences, the anticipated demands involved in working at a competitive job, the perceived self-stigma that SMI individuals cannot work at competitive jobs, or the severity of negative symptoms affecting avolition/asociality [27]. In addition, the job search process prior to obtaining competitive employment can be challenging, complicated (eq., filling out job applications, going on interviews), and time consuming.

Over the years, there has been an effort to target underserved clinical populations, including SE-IPS applications for recently deployed veterans and individuals with chronic pain, criminal justice backgrounds, recent homelessness, autism, and chronic substance use disorders. Recent efforts have targeted younger-aged SMI individuals (eg, first episode or recent onset psychosis patients) as well.

Working poses additional challenges that may include transportation issues, adhering to work schedules, maintaining appropriate hygiene and grooming, socializing with non-SMI coworkers, and other requirements. SE-IPS programs assess the degree and nature of their SMI clients' ambivalence to work and address these issues during the course of providing services.

## **COMPONENTS**

Supported employment under the individual placement and support model (SE-IPS) embodies eight core principles:

**Competitive work** — The overriding goal of SE-IPS is to assist the severe mental illness (SMI) client in obtaining competitive work. This model bypasses involvement in prevocational training and protective work experiences prior to beginning competitive work. It was postulated that, in addition to the financial benefits of competitive work, integration of the SMI client into a regular work setting with others without SMI might confer mental health benefits as well. [19-22,28-30].

**Zero exclusion** — No individual who expresses a desire to work at a competitive job is turned away from SE-IPS. Severity of mental illness, alcohol/substance use, cognitive impairment, physical limitations, or other factors do not prevent SMI individuals from being enrolled in SE-IPS and receiving these services.

Integration with mental health treatment services — It is important to address mental health needs that may interfere with the ability to function in a competitive work environment. In mental health clinics with a multidisciplinary treatment team comprised of psychiatry, psychology, nursing, social work, and other disciplines, SE-IPS employment specialists are a bona fide member of the treatment team and interact with other represented disciplines in working to achieve treatment goals involving work outcomes. As an example, a psychiatrist may decide to adjust medications with sedating side effects so that they do not interfere with an SMI individual's ability to be alert and wakeful during working hours.

**Job choice based on client preferences** — This principle underscores the model's emphasis on job fit for the SMI individual. The basic premise is that SMI individuals are more likely to be motivated to seek a competitive job and continue working at that job if it matches their personal interests.

**Provision of personalized benefits counseling** — Many SMI individuals have financial concerns about returning to work (eg, the fear that returning to work will result in a loss of benefits, such as social security disability or health care insurance). Misperceptions about the impact of competitive work on these benefits can be a strong disincentive. As part of SE-IPS, SMI individuals are provided accurate information about the financial, health care, and retirement benefits associated with their job and how their disability subsidies are affected. Additional information is found on a website.

**Rapid job search** — The search for a competitive job is typically conducted within 30 days after enrollment into a SE-IPS program. As a first step, an assessment evaluation is conducted to gather information about the SMI individual's past work history, strengths and weaknesses, and specific work interests to guide job selection. Actual job obtainment can take months to achieve, but the search for competitive employment begins rapidly within the SE-IPS program.

**Disclosure** — Disclosure within the context of supported employment pertains to the degree of information provided to an employer about one's disability. According to the SE-IPS model, the employment specialist works with the SMI individual to facilitate an understanding of the advantages and disadvantages associated with different levels of disclosure and then to work with the SMI individual to decide upon the level that is most comfortable for them. For example, an SMI individual with schizophrenia may not want to disclose their psychiatric diagnosis but may find it desirable for the supervisor to know that they have a disability and may benefit from accommodations (eg, more time) to complete certain job assignments.

**Continuous, follow-along job supports** — SMI individuals generally need continued support after getting a job. The amount and type are individualized to the client's needs and preferences. SMI clients typically have frequent contact with their employment specialist during the first month or two on a job to help them address the numerous challenges commonly encountered during this period (eg, disclosure decisions, job demands, transportation challenges, interpersonal difficulties, etc).

Over time, less frequent contact is generally necessary as the SMI client gains familiarity with the job and work-related issues are resolved.

**Standardization** — SE-IPS is manualized with training and consultation available from the IPS Employment Center [31]. In efforts to standardize SE-IPS across programs, a 25-item fidelity scale was developed to measure the degree to which programs adhere to and implement the eight SE-IPS core principles. Data exist to indicate that programs with higher fidelity scores yield better work outcomes than lower fidelity programs [32,33].

## **EFFICACY**

SE-IPS versus traditional vocational rehabilitation programs and other control interventions — Data collected over the past >20 years consistently show supported employment under the individual placement and support model (SE-IPS) to yield higher employment rates compared with alternative vocational rehabilitation services. Results from meta-analyses and other controlled trials show SE-IPS participants to be employed at rates 1.5 to 3 times higher [16]. Quarterly employment figures from programs within the IPS Employment Center have averaged 40 to 50 percent employment rates for over 20 years [33]. As examples:

• A meta-analysis including 32 SE-IPS trials and 7765 subjects (diagnoses included 45.1 percent with a schizophrenia spectrum disorder diagnoses, 33.8 percent with a major

depressive disorder diagnosis, and the remainder 21.2 percent had other psychiatric diagnoses) who were randomly assigned to SE-IPS versus a control intervention showed that SE-IPS subjects were more likely be employed at follow-up compared with control group subjects (48.8 versus 28.3 percent; odds ratio 2.62, 95% CI 2.37-2.89) [17].

The overall effect sizes for employment rate were not influenced by duration of the follow-up period (ie, greater than 12 months versus less than 12 months). Results also showed SE-IPS participants to have greater job tenure over follow-up than those in control interventions (25.2 [11.8] versus 13.1 percentage of time employed [11.4]; d = 0.41, 95% CI 0.30-0.52). The meta-analysis included nine studies in which the control intervention was treatment as usual. However, follow-up analyses did not reveal any significant influence of passive versus active control condition on job tenure. Regardless of these considerations, the figures for duration of time employed are low for both groups.

- In a clinical trial, 85 veterans (age 19 to 60 years) with PTSD were randomly assigned to SE-IPS or a Veterans Health Administration Vocational Rehabilitation Program (VRP) and followed for 12 months [34]. VRP included prevocational testing and assessment, a work regimen with monetary incentives received on a piece-rate basis, and time-limited transitional work experience. Results showed that more SE-IPS participants obtained competitive employment compared with VRP participants (76 versus 28 percent). SE-IPS participants also worked more weeks (21.6 versus 6.8 weeks) and earned higher income (\$9264 versus \$2601) than VRP participants.
- In a review of international SE-IPS controlled studies (United States and non-United States studies), higher rates of competitive employment for subjects in SE-IPS as compared with those assigned to alternative vocational rehabilitation services were reported (55.7 versus 22.6 percent) [35]. Additionally, SE-IPS was found to consistently yield better work outcomes on other measures including mean number of days to first competitive job, mean hours worked per year, and number of weeks working 20 or more hours. However, differences between SE-IPS and alternative vocational rehabilitation services on job tenure, as measured by annualized weeks worked for those who obtained competitive jobs, was not found (20.0 versus 19.3 weeks). Other reviews have reported similar results with regard to job tenure [36,37].

Data on the [35-37] effectiveness of SE-IPS on job tenure require further consideration such as potential moderators that may influence the variability in findings across studies [35-37]. The meager figures for job duration reported across a number of studies are somewhat surprising given the SE-IPS emphasis on continuous, follow-along support that is designed to address problems that may lead to early job termination.

A consideration here is that many competitive jobs obtained within supported employment programs are short-term, entry-level, part-time jobs that are low paying and have a high turnover rate within the general population. Hence, the relatively brief job tenure, regardless of condition, observed in many studies (eg, less than six months) is not all that surprising. Another point of consideration is a more recent finding that social factors are an important determinant to early job termination [38]. SE-IPS programs may not be best suited to address the social difficulties that individuals with severe mental illness (SMI) experience in a competitive work environment. Hence, it may be necessary to augment SE-IPS with other targeted treatments to yield greater improvements in job tenure. (See 'Efficacy of augmented SE-IPS programs' below.)

Studies reporting wages earned from competitive employment in the United States generally show that SE-IPS participants earned less than \$10,000 over the reported follow-up periods [11], which is consistently higher than that reported for participants who received alternative vocational rehabilitation services [34,39-44].

Effects of competitive employment on nonvocational outcomes — Competitive employment appears to be associated with beneficial effects on quality of life as measured by scales such as the Heinrichs-Carpenter Quality of Life and Lehman Quality of Life interview. These findings do not appear specific to SE-IPS, but rather competitive work in general [19,20,22,23]. Some data suggest that competitive employment is associated with other positive nonvocational outcomes as well such as reduced negative symptoms, better cognitive functioning, higher levels of social functioning, a decreased need for psychiatric service use, and fewer psychiatric hospitalizations, though these findings are more mixed [19,21].

**Predictors of SE-IPS work outcomes** — The principle of zero exclusion (ie, that all SMI individuals can benefit from SE-IPS) appears to be largely supported by research on predictors of work outcomes under this model. The observed benefits of SE-IPS do not appear to be limited by client demographic (including race) or clinical characteristics [17,45-47]. As an example, data from four SE-IPS studies with 307 SMI participants were analyzed to examine predictors of job obtainment and job tenure over an 18-month period [48]:

- Only work history among participants who received SE-IPS predicted job obtainment not disability income, age, sex, ethnicity, education, marital status, psychiatric hospitalization over the past year, psychiatric diagnosis, thought disturbance, anergia, disorganization, overall symptomatology, substance use disorder, study site, or type of disability benefits.
- Only receipt of disability benefits by type among participants who received SE-IPS significantly predicted job tenure. To place this finding in context, it should be noted that

disability income accounted for only a very small percentage of the variance in job tenure (<3 percent).

Data exist to indicate that fidelity of SE-IPS programs to the eight core principles is a strong predictor of work outcomes, with high fidelity programs yielding better outcomes than lower ones [18,32].

Efficacy of augmented SE-IPS programs — Although findings across studies consistently show SE-IPS to be more effective than alternative vocational rehabilitation services at helping SMI individuals obtain competitive work, approximately 40 percent of SE-IPS participants in these studies do not obtain a competitive job, and mean job tenure is highly variable with ranges reported from as low as 10 weeks to over a year [49-53]. Thus, there remains room for improvement.

Efforts have focused on augmenting SE-IPS by adding supplemental training interventions. Findings from augmented SE-IPS studies are categorized according to "cognitive remediation," "social skills interventions," and "other skills training interventions," and are briefly summarized below:

- **SE-IPS plus cognitive remediation interventions** Narrative reviews and other studies provide mixed data on the effects of adding cognitive remediation to SE-IPS or another form of supported employment [26,54-60].
- **SE-IPS plus social skills interventions** Results from studies suggest that augmented SE-IPS as compared to SE-IPS alone, may lead to better employment rates, longer job tenure, gains in selected areas of social cognition, and greater improvement on targeted work behavior problems (eq., social skills) [38,61,62].
- **SE-IPS plus other skills training interventions** Studies that examined the effects of adding the Workplace Fundamentals Module, a group-based skills training module that emphasizes social and problem solving skills necessary for successful employment, have found conflicting results [63,64].

## **ADVERSE EFFECTS**

Although critics of SE-IPS's emphasis on rapid entry into competitive work postulated that it could lead to adverse mental health consequences (eg, psychiatric relapse), multiple studies have failed to find any empirical support for such a connection [28,49,65].

#### **SUMMARY**

- **Severe mental illness (SMI)** Supported employment was developed for individuals with SMI, a mental disorder characterized by severe symptoms and behavioral impairment, pronounced disability in basic life skills, and a prolonged course of illness. (See 'Severe mental illness' above.)
- Overview and context Supported employment under the individual placement and support model (SE-IPS) focuses on obtaining competitive employment via a rapid job search and follow-along support, while traditional vocational rehabilitative programs focus on prevocational training and experience in noncompetitive, structured, staff supported, work-type settings with other SMI individuals as an initial step. (See 'Overview and context' above.)

Over 1000 SE-IPS programs exist within the United States. SE-IPS programs are also available in 19 other countries worldwide. SE-IPS is manualized with training and consultation available from the IPS Employment Center. In efforts to standardize SE-IPS across programs, an updated 25-item fidelity scale was developed to measure the degree by which programs adhere to and implement the eight core SE-IPS principles. (See 'Overview and context' above and 'Standardization' above.)

- **Components** Core principles of SE-IPS include emphasis on competitive employment, zero exclusion, rapid job search, integration with mental health treatment services, job choice based on client preferences, provision of benefits counseling and continuous, follow along job supports, and consideration of the benefits and risks of disclosure. (See 'Components' above.)
- **Efficacy** As reported in over 30 controlled clinical trials, individuals with SMI receiving SE-IPS are 1.5 to 3 times more likely to obtain a competitive job compared with those who received alternative vocational rehabilitation services. (See 'Efficacy' above.)
  - Besides better employment rates, individuals with SMI receiving SE-IPS also generally show better work outcomes on measures such as time to first competitive job, hours worked, and wages earned relative to individuals assigned to alternative vocational rehabilitation services. Results on job tenure have been more variable. (See 'Efficacy' above.)

The principle of zero exclusion under the SE-IPS model (ie, that all SMI individuals can benefit from the supported employment) is largely supported by research on predictors of

SE-IPS work outcomes. The observed benefits of SE-IPS do not appear to be limited by client demographic or clinical characteristics. (See 'Predictors of SE-IPS work outcomes' above.)

- Augmented SE-IPS programs Despite the well-recognized superiority of SE-IPS over traditional vocational rehabilitation, approximately 40 percent of SMI individuals in SE-IPS programs do not obtain competitive jobs, and job tenure is highly variable across studies. To further improve employment rates and job tenure for SMI participants in SE-IPS programs, augmenting SE-IPS with either cognitive remediation, social skills training, or compensatory behavioral training interventions may be beneficial. These add-on interventions may be particularly beneficial for nonresponders to SE-IPS services (eg, unable to obtain a competitive job, unsatisfactory job termination). (See 'Efficacy of augmented SE-IPS programs' above.)
- Adverse effects While SE-IPS's emphasis on more rapid entry into competitive work
  compared with traditional vocational rehabilitation had been postulated as having adverse
  mental health consequences, multiple studies have failed to find any association between
  receipt of SE-IPS services and adverse effects on psychiatric symptoms or overall mental
  health. (See 'Adverse effects' above.)

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