L'Encéphale (2014) 40, S45—S56

L'ENCÉPHALE
Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.em-consulte.com/produit/ENCEP

EMPLOYABILITY AND MENTAL DISABILITY

Supported employment for persons with serious mental illness: Current status and future directions☆

Le modèle du soutien à l'emploi pour les personnes ayant une maladie mentale sévère : situation actuelle et orientations futures

K.T. Mueser*, **S.R. McGurk**

Departments of Occupational Therapy, Psychology, and Psychiatry; Center for Psychiatric Rehabilitation, Boston University, 940 Commonwealth Avenue West, Boston, MA 02215, United States

Received 8 April 2014; accepted 29 April 2014
Available online 11 June 2014

KEYWORDS
Supported employment;
Severe mental illness;
Individual placement and support IPS

Summary The individual placement and supported (IPS) model of supported employment is the most empirically validated model of vocational rehabilitation for persons with schizophrenia or another serious mental illness. Over 18 randomized controlled trials have been conducted throughout the world demonstrating the effectiveness of supported employment at improving competitive work compared to other vocational programs: IPS supported employment is defined by the following principles: 1) inclusion of all clients who want to work; 2) integration of vocational and clinical services; 3) focus on competitive employment; 4) rapid job search and no required prevocational skills training; 5) job development by the employment specialist; 6) attention to client preferences about desired work and disclosure of mental illness to prospective employers; 7) benefits counseling; and 8) follow-along supports after a job is obtained. Supported employment has been successfully implemented in a wide range of cultural and clinical populations, although challenges to implementation are also encountered. Common challenges are related to problems such as the failure to access technical assistance, system issues, negative beliefs and attitudes of providers, funding restrictions, and poor leadership. These challenges can be overcome by tapping expertise in IPS supported employment, including standardized and tested models of training and consultation. Efforts are underway to increase the efficiency of training methods for supported employment and the overall program, and to improve its effectiveness for those clients who do not benefit. Progress in IPS supported employment

☆ This research was supported by NIMH grant 2R01MH077210.
* Corresponding author.
E-mail address: mueser@bu.edu (K.T. Mueser).

http://dx.doi.org/10.1016/j.encep.2014.04.008

offers people with a serious mental illness realistic hope for achieving their work goals, and taking greater control over their lives.

MOTS CLÉS
Soutien à l'emploi ;
Maladie mentale sévère ;
Insertion professionnelle

Résumé Le modèle du soutien à l'emploi de type IPS (*individual placement and supported* : soutien individualisé à l'insertion) correspond à la pratique d'aide à l'insertion professionnelle qui a le mieux fait ses preuves empiriquement, pour les personnes atteintes de schizophrénie ou d'un autre trouble mental grave. Plus de 18 essais randomisés contrôlés, réalisés à travers le monde, montrent que le soutien à l'emploi est plus efficace que les autres pratiques d'aide à la réinsertion, pour accéder à un emploi en milieu ordinaire de travail. Le soutien à l'emploi de type IPS est défini par les principes suivants, qui le distinguent des pratiques traditionnelles d'aide à la réinsertion : 1) toutes les personnes ayant un trouble mental sont admises dans le programme dès lors qu'elle souhaitent travailler, sans critère d'exclusion tels que des symptômes, la consommation de substances ou des déficits cognitifs (principe d'exclusion zéro) ; 2) une intégration (ou une étroite articulation) est requise entre les services de soin et les services d'accompagnement vers le travail ; 3) l'objectif visé est un emploi standard en milieu ordinaire de travail ; 4) la recherche d'emploi débute rapidement et ne requiert pas de réentraînement professionnel préalable ; 5) le conseiller en emploi spécialisé œuvre activement au développement d'emplois, en établissant une étroite collaboration avec les employeurs 6) les préférences de la personne en matière d'orientation professionnelle sont prises en compte. Il en va de même concernant de dévoilement de la nature de son handicap à son futur employeur ; 7) des conseils sont donnés sur les avantages sociaux auxquels la personne peut prétendre au titre de son handicap ; 8) le soutien proposé par le conseiller en emploi spécialisé est poursuivi après l'obtention d'un emploi, sans limitation dans la durée. Le soutien à l'emploi a été mis en œuvre avec succès dans un large éventail de contextes culturels et de populations cibles, même si cette mise en œuvre n'est pas allée sans difficultés. Les problèmes à surmonter sont souvent le manque d'assistance technique disponible, les questions d'organisation du soutien, les doutes et les attitudes négatives des professionnels de la réinsertion, les restrictions budgétaires et les questions de management. Ces difficultés peuvent être surmontées en faisant à appel à l'expertise propre aux programmes de soutien à l'emploi de type IPS, y compris aux modèles standardisés et validés de consultation et de pratique. De nouvelles initiatives sont en cours pour accroître l'efficacité de l'accompagnement vers et dans l'emploi, et du programme de soutien dans sa globalité, en particulier pour les personnes qui n'en bénéficient pas encore. Les avancées du soutien à l'emploi de type IPS offrent aux personnes ayant un trouble mental grave un réel espoir d'atteindre leurs objectifs professionnels, et de parvenir à un meilleur contrôle sur leur propre vie. Faciliter l'accès au soutien à l'emploi est une priorité si on veut aider les personnes vivant avec un trouble mental grave à accéder à une vie meilleure grâce à un emploi satisfaisant en milieu ordinaire, et réduire le stigmate social lié à la maladie mentale.

The rates of competitive employment for persons with schizophrenia and other serious mental illnesses across all countries fall far below those of the general population, and are typically reported to be in the range of 10 to 25% [1—4]. These high levels of unemployment contribute to a poor quality of life for people with a serious mental illness, including low economic standing, lack of meaningfully structured time, and continued social stigma due to negative social attitudes about mental illness and ability to work [5—8]. Although most people with a serious psychiatric disorder do not work, between 55 and 75% of individuals express an interest in employment, with competitive work as their primary goal [3,9—13]. Therefore, there is great potential for rehabilitation efforts aimed at improving this important area of functioning.

Over the past two decades, there has been tremendous growth in the development and evaluation of vocational rehabilitation models for persons with a serious mental illness. The most significant advances have been in the standardization and evaluation of the *supported employment* model, which is based on the *place-train* approach to vocational rehabilitation (e.g., the person is helped to first obtain a competitive job, which is then followed by any required skills training), in contrast to the *train-place* approach (e.g., skills training is provided first, often in non-competitive work settings, in order to prepare the person for competitive work), which dominated the field until recently [14]. The shift away from train-place models of vocational rehabilitation was largely due to the lack of evidence supporting its effectiveness at improving employment outcomes in people with a severe mental illness [15], and encouraging outcomes of supported employment for individuals with other disabilities [16]. The most thoroughly standardized approach to supported employment for persons with serious mental illness is the Individual Placement and Support (IPS) model [17—21]. In addition to manuals and other resource

materials on IPS supported employment, psychometrically sound measures of fidelity to the model have been developed and validated [22—24].

In this paper, we describe the principles of supported employment, based on the IPS model, and research on the approach. We examine differences in work outcomes between studies conducted the US, where IPS supported employment was developed, and other countries that have implemented and evaluated the model. We discuss different factors that act as barriers to the successful implementation of supported employment, and consider potential solutions to overcoming these barriers. We conclude by considering recent efforts to improve the effectiveness and cost-effectiveness of supported employment.

Principles of supported employment

Eight principles have been established to define IPS supported employment, and which guide its implementation in community mental health settings [18,19]. These principles are described below.

Zero exclusion criteria

Eligibility to participate in supported employment is determined by client choice alone, based on the individual's desire to work. IPS supported employment is a unique model of vocational rehabilitation because there are no exclusionary criteria, such as severity or acuity of symptoms, cognitive impairment, or substance abuse; every person with a serious mental illness who wants to work is eligible. When a client states an interest in work, his or her treatment team makes a referral to the supported employment program, and does not delay the process by attempting to assess ''readiness'' for work or level of motivation. People are treated as capable of working and are provided the supports to help them do so.

The rationale for this principle is based on philosophy that every person who wants to work deserves an opportunity [25]. Although many clients want to work, mental health practitioners frequently focus more on their symptoms and impairments than their personal strengths [26], believe that work is unduly stressful despite evidence to the contrary [27,28], and doubt their ability to work [29]. Despite the frequent pessimistic predictions by clinicians about the ability of their clients to work, such predictions regarding vocational outcomes are poor [30]. In fact, practitioners are sometimes surprised when clients, for whom they had no work expectations, have successful work experiences. Recommendations to agencies for increasing enrollment in supported employment include setting up a simple referral system, encouraging all clients to consider work, providing informational brochures about supported employment in waiting areas to make work visible in the mental health agency, and inviting employed clients to talk to other clients and practitioners about their work experiences.

Integration of vocational and clinical service

Because rehabilitation is an integral component of mental health treatment, supported employment is most effective when it is integrated with clinical services at the level of the treatment team, and employment specialists participate in regular treatment team meetings (e.g., weekly) to coordinate services. Other features of integration include co-location of offices and maintaining an integrated client record. The integration of clinical and vocational services serves three broad functions. First, it maximizes engagement and retention in vocational services because employment specialists can collaborate with clinical team members to ensure initial contact with the client, and can maintain engagement over time and during periods when motivation to work may wax and wane. For example, in a randomized controlled trial (RCT) of 204 clients with serious mental illness comparing IPS supported employment with integrated services to standard vocational services (including off-site supported employment and enclave work programs), and an off-site psychosocial rehabilitation clubhouse program, 100% of the clients in IPS were engaged and 91% had been retained in the program during the last six months of the two-year study period, compared to rates of 75% engagement and 17% retention for standard vocational services (rates were similar for the off-site supported employment and enclave programs), and 85% engagement and 57% retention in the clubhouse program [31].

Second, participation in treatment team meetings provides employment specialists valuable information about clients' symptoms and other challenges, and how they manage their illness, which can inform the types of jobs and work settings that will support their recovery. Employment specialists can also convey information about how the person is functioning during the job search or at work, which can inform treatment decisions. For example, regular communication between vocational and treatment teams facilitates rapid response to pertinent issues that could have implications for clinical and/or work functioning, such as changes in medications to reduce side effects or fend off a relapse, or changes in types and amounts of vocational services provided. Third, the integration of vocational and clinical services enables the employment specialist to ensure that the client's work goals are given the credence and attention they deserve by the clinical team, and are not viewed as secondary to symptom management and other clinical concerns, which contribute to a recovery-oriented culture of work shared among all team members [18]. Such collaborative work also enables the employment specialist and client to benefit from clinical team members' suggestions regarding the client's work goals, such as potential job leads or vocational supports.

Focus on competitive employment

The goal of supported employment is competitive work, as opposed to sheltered or other types of work. Competitive work is defined as jobs that pay competitive wages, occur in integrated community settings, and are ''owned'' by the person rather than the vocational program (e.g., transitional employment obtained by psychosocial rehabilitation clubhouses and performed by clients [32], contract work secured by a vocational agency and completed by clients in enclaves in the community or sheltered workshops) [33]. This principle is based on the clear preference clients express for competitive employment over other types of paid work [9].

Rapid job search

The search for work begins soon after the client joins the supported employment program, at a pace that is comfortable for that person, but often commencing within a month. Research shows that more rapid initiation of the job search following enrollment in supported employment is associated with higher rates of work than when the job search is delayed [34]. Clients are not required to participate in lengthy prevocational training or assessments. Rather, the client and employment specialist determine a plan for finding the desired job and the responsibilities of each person in the job search. For example, some clients have difficulty making contact with employers and choose to have the employment specialist take the lead. Employment specialists spend several weeks meeting with clients and collecting information to develop a vocational profile to be used in identifying job types and work settings. Employment specialists initiate discussions with clients about whether to disclose to an employer information about the person's illness in relation to working.

Respect for client preferences

Initial meetings between the client and employment specialist typically involve discussions of the types of jobs the client is interested in obtaining, and developing a plan for the services the client would find useful in their job search. These discussions are collaborative, with client preferences informing decisions about employment services, such as when, where, and how often the client and their employment specialist will meet, and the goals of the meetings. As a part of developing the plan for the job search, the employment specialist and client review the client's work history and his or her resume to highlight relevant history, and available job references. In addition to the type of job the client wants, the employment specialist determines the client's preferences regarding work setting (size and location of the business), work schedule (morning vs. afternoon or evening work hours), total hours per week (e.g., part vs. full time), distance from work, and amount and type of social interactions required for job tasks. Research has shown that job tenure is longer when clients in supported employment obtain jobs that match their vocational preferences than when they do not [35,36].

The employment specialist also discusses with the client the issue of whether to disclose his or her mental illness to a prospective employer. This involves weighing the pros and cons of disclosure in order to aid in the client making an informed decision about if or when they might disclose having a mental illness, as well as the level of disclosure he or she is comfortable with. The client's preferences regarding disclosure are respected by the employment specialist, and may be explored again over time, based on new information obtained during the job search. Because client preferences determine amount and timing of services, and type of job(s) sought, all aspects of supported employment services are individualized, and clients in supported employment programs obtain a diversity of jobs.

Systematic job development

There is evidence that clients with a serious mental illness often become discouraged with self-directed job searches, and give up [37]. To avert this, employment specialists continually develop relationships with, and a network of, employers to facilitate optimal job matches for their clients. In addition to community-based employers, employment specialists network with their coworkers, and other people they encounter in their everyday life, including treatment team members, board members, family members, friends, and their friends' networks, to identify job leads that are consistent with client preferences. Employment specialists are always on the lookout for available or potential jobs, and for opportunities to cultivate jobs providing a ''good fit'' with types of employment their clients are seeking.

Follow-along supports

After competitive work has been obtained, individualized job supports are provided by the employment specialist and the mental health treatment team for as long as necessary. Ongoing supports are part of the comprehensive nature of supported employment services, and include both contacts with the client and employers. Clients benefit from continuous availability of supports to help them solve problems at work, access their clinical treatment team, obtain direction regarding the performance of new job tasks, and suggestions regarding job accommodations that can be helpful to improve their job performance, among other supports and services. The frequency of job support contacts after obtaining work is associated with a longer job tenure [38].

If a job ends, the employment specialist helps the client plan for the next work experience. They incorporate information about previous work experiences to update the employment plan and move forward. Many such supports are delivered ''behind the scenes'' and off the work site. The employment specialist is an important and unique resource for the working client in his or her understanding of the potential effects of the person's mental illness on job performance, contact with the treatment team and ability to access the team's services to aid in the client's job stability, and the guidance he or she can provide in managing the client's illness in the work world. Many clients do not have a similar person or resource in their daily life and thus the employment specialist fills this critical gap.

Benefits counseling

Worry about the impact of work on disability and health insurance benefits is a major concern of clients contemplating employment [39], and providing practical information about this is critical to informed decision-making process. Individualized benefits counseling is a key ingredient of supported employment that includes discussion about the effects of work income on governmental disability and health benefits, and well as potential incentive programs that the client may access that are designed to encourage work in special populations. Research shows that the provision of benefits counseling is associated with better employment outcomes [40], as such information tends

to allay clients' fears that returning to work involves a significant risk of the loss of valued benefits, and associated anxiety if they are unable to successfully maintain a job.

In sum, the principles of supported employment, including zero exclusion, attention to client preferences, integration with psychiatric services, rapid job search, no prevocational training and minimal assessment, benefits counseling, job development, and individualized ongoing supports, are evidenced based, and lead to superior competitive work outcomes compared to all other vocational models.

Implementation of IPS supported employment

In addition to the guiding principles of supported employment, the IPS model specifies an organizational structure and context for services for providing the program, which are incorporated into the IPS Fidelity Scale [24]. Supported employment services are provided by an IPS team, which is led by a director or supervisor and staffed by at least two employment specialists, who meet weekly for group supervision. Employment specialists provide only vocational services to avoid having to divide their attention between tasks to help clients' obtain work and clinical or case management needs. Each employment specialist carries a caseload of approximately 20 clients, and provides the full range of supported employment services, including job development, job search, and follow-along supports, to ensure continuity of services throughout the entire program.

Competitive work is viewed as a normalizing activity, which naturally takes place in the community. In line with the normalizing goals of supported employment, and influenced by the Assertive Community Treatment model of case management [41], most services are provided in community-based settings (e.g., client's home, coffee shops, parks, walking and exploring possible jobs), rather than at a mental health center. Emphasizing the community as the preferred place to deliver supported employment services has several other advantages that can facilitate getting and keeping jobs. Spending more time in the community can stimulate potential job leads through increased exposure to the world of work and serendipitous events that present unexpected opportunities. Meeting with clients in community-based settings, including their home also facilitates connections with family members and other natural supports, which may have an important impact on the client's vocational success. For example, family members are sometimes concerned that the stress of work may trigger a relapse and may thus discourage a loved one from seeking employment. Information that employment specialists provide to family members can highlights the fact that work does not precipitate relapses. Rather, work can actually reduce symptoms [27]. This important information about work can alleviate family concerns and garner their support for their relative's goals, leading to additional job leads and other assistance.

Research on supported employment

The research literature on supported employment has been repeatedly reviewed over the last decade [19,42—47]. Although the details and specific focus of the reviews differ, the overwhelming conclusion reached has been that supported employment is effective at improving competitive employment outcomes in people with a serious mental illness. The most comprehensive and recent of these reviews, which also gives critical attention to studies that documented fidelity of the supported employment program to the IPS model, is Bond et al. [43]. A summary of the primary findings from this review sets the necessary empirical context for further discussion of the effectiveness of supported employment.

Bond, Drake, and Becker (2012) review

Bond et al. [43] identified a total of 15 RCTs of supported employment based on the IPS model, including nine conducted in the US and six in other countries, with a total of 2180 clients. Ten of the RCTs were single site studies, and six were multisite studies, with an average follow-up period of 18 months. Most studies tracked a common set of competitive employment outcomes, including the cumulative percentage of clients who obtained competitive work, duration (e.g., weeks) and amount (e.g., hours) of work, time to first job, and wages earned. The comparison groups in these studies were usually traditional or best practice vocational rehabilitation programs, but in some studies, the control group was treatment as usual. In most of the studies, approximately one-half or more of the study participants had schizophrenia-spectrum disorders.

Across all 15 studies, the rate of cumulative employment for individuals receiving supported employment was 56%, compared to 23% for those in the alternative group. When differences were explored between countries where the study was conducted, supported employment was associated with a higher cumulative rate of competitive work in US studies (unweighted mean of 62%) than non-US studies (47%), but similar and low rates of work for the comparison interventions (23% and 22% respectively). Among the studies conducted in the US, one was an outlier with much lower rates of competitive work [48], which was presumably due to the fact that this was the only study that did not require an espoused desire for work as an inclusion criterion. Similarly, among the non-US studies, there was also one outlier with much lower rates of work [49,50], which have been speculated to be due to the low level of engagement of clients in the supported employment program and limited amount of vocational services provided [51]. When these two studies were excluded, the rates of work for clients in supported employment increased to 69% in US studies and 56% in non-US studies, compared to 22% in comparison programs of both groups of studies.

The cumulative proportion of clients who obtain competitive work in each vocational program is only one measure of vocational outcomes. Consistent with results of individual studies, Bond et al. show that the superior effectiveness of supported employment on multiple other work outcomes. Clients in supported employment tended to work more hours than those in the comparison groups (284 vs. 86 hours/year) and more weeks (12.8 vs. 4.9 weeks/year). Consistent with the emphasis on rapid job search, clients in supported employment had fewer days to their first competitive job than those in the comparison groups (136 vs. 205 days, respectively). Also consistent with the integration

of vocational and clinical services and the provision of most services in the community in supported employment, it was associated with a lower rate of early drop out (9%) than the comparison vocational programs (42%).

Interestingly, while supported employment helps more clients obtain competitive work, the amount of work among employed clients is comparable between the supported employment and comparison groups in most studies. For example, across eight RCTs, among the 64% of clients in supported employment who obtained competitive work, the average total number of weeks worked was 20 weeks per year. Among the 25% of clients in the comparison groups who worked in these studies, the average number of annualized weeks worked, 19, was almost identical.

In addition to evaluating the effects of supported employment on work outcomes, most studies have also evaluated other clinical (e.g., symptoms, hospitalizations), functional (e.g., social functioning), or quality of life (e.g., life satisfaction) outcomes. Across the reviewed RCTs, there were no consistent differences in these outcomes between clients who received supported employment and those in the comparison groups. It should be noted, however, that several studies have demonstrated positive changes in non-vocational domains (e.g., symptoms, self-esteem) when people with serious mental illness obtain work [52—54]. In summary, the Bond et al. review of RCTs demonstrates that IPS supported employment has a strong evidence base for improving employment outcomes in persons with a serious mental illness, including studies conducted both in the US and abroad, with moderately stronger effects reported in US studies.

Recent controlled research on supported employment

Over the past two years, several additional RCTs have been published evaluating the effects of IPS supported employment in unique populations or settings, or reporting more extended follow-up results. In the largest RCT of supported employment conducted to date, Drake et al. [55] evaluated the effects of supported employment combined with medication management, other behavioral health services, and suspending disability reviews, compared to usual services, in 2059 people with major mood disorders (70%) or schizophrenia (30%) who were receiving US Social Security Disability Benefits (SSDI). SSDI benefits are provided to individuals who have a history of competitive work preceding the development of a psychiatric or physical disability. Over the two-year period, 60% of the individuals receiving supported employment obtained work, compared to 40% of those assigned to usual services.

Since the initial success of early research on supported employment in the US, increasing attention has been paid to its implementation in Europe [56,57], Canada [58], and Australia [59]. However, with the exception of several RCTs in Hong Kong [60,61], there has been little implementation in other countries in Asia, and no RCTs. Oshima et al. [62] reported the results of the first RCT of supported employment conducted in Japan. A total of 37 clients with serious mental illness were randomized to either IPS supported employment or usual vocational rehabilitation services and followed up for six months. Clients in IPS supported employment were more likely to obtain competitive work than those in usual vocational services (44% vs. 10%, respectively), as well as to work more hours and more weeks. The findings support the robustness of supported employment for improving work outcomes in people with a serious mental illness.

One recent study from Switzerland has reported on the longer-term results of a previously published RCT comparing IPS supported employment with usual vocational services in 100 clients with a serious mental illness. The results of the two-year follow-up indicated higher competitive work rates, more hours and weeks worked, and more wages earned for clients who received supported employment than those receiving usual vocational services [63]. At the five-year follow-up, during which period clients continued to have access only to the programs to which they had originally been randomized, the competitive work advantages for the supported employment group over the traditional vocational services group had been sustained.[1] Additionally, a new benefit of supported employment emerged that was not present at the two-year follow-up: clients in supported employment were less likely to be hospitalized and spent less time in psychiatric hospitals than clients receiving usual vocational services. Further, the treatment costs associated with the lower hospitalization rates, combined with increased earnings from competitive work, exceeded the additional costs of the supported employment program, resulting in a net higher social return on investment of resources involved in the provision of supported employment services.

Implementation challenges

Controlled research on supported employment makes a compelling case that the IPS model is the most empirically validated approach to improving competitive work in people with a serious mental illness. Supported employment has also been successfully implemented, and shown to be effective in a broad range of different client populations varying in terms of cultural background, setting, and the specific nature of the individual's disability. For example, aside from RCTs demonstrating beneficial effects of supported employment in different countries in Europe [57,64], Canada [65], Australia [66], and Asia [60,62], studies have shown its effectiveness in minority populations in the US such as African Americans [31,67] and Latinos [68]. A secondary analysis focusing on clients with serious mental illness and a co-occurring substance use disorder, drawn from three larger RCTs, showed that supported employment improved work outcomes more than the alternative vocational programs [69]. Supported employment has been shown to be effective for veterans with posttraumatic stress disorder [70], individuals recovering from a first episode of psychosis [66,71], and persons with spinal cord injuries [72,73].

Despite the numerous experiences with successful implementation of IPS supported employment, there have also

[1] Hoffmann H. Sustainable vocational inclusion by supported employment: five-year follow-up of a randomized controlled trial. 14th International Congress of the IFPE, Leipzig, 5—8 June 2013.

been a significant number of less successful or failed attempts. The fact that supported employment *can* be implemented with a wide range of different clinical populations and cultural groups suggests that difficulties with implementation are more likely a function of specific characteristics of the individuals, organizations, and public institutions that are responsible for the treatment, rehabilitation, and social welfare of persons with a serious mental illness than the characteristics of the clients themselves. While many explanations for poor implementation have been proffered [58,74—76], for the sake of this discussion we divide them into three broad areas, including provider knowledge of IPS supported employment, system issues, and beliefs and attitudes of providers. We do not discuss two other commonly cited obstacles to implementing supported employment, lack of funding (or funding cuts) and poor leadership [43], as these are generic obstacles to the implementation of any new practice that requires training and redeployment of professional staff.

Knowledge and skills

Successful implementation of a practice requires adequate knowledge and skills in the practice, which is usually gradually acquired through training and consultation over a period of time. Although there are established experts in IPS supported employment, and training methods have been developed that continue to evolve over time, some failed attempts to implement supported employment have been attributed to the lack of the necessary technical assistance to ensure that employment specialists and supervisors had the critical knowledge and skills [43]. For example, the Heslin and Howard RCT of supported employment in South London [49,50] purported to implement IPS supported employment in an RCT including 219 clients. In their description of the supported employment model they stated that, consistent with the IPS principle of integration of services, ''In addition to seeing clients, the employment specialists attended team meetings and multidisciplinary care planning meetings, and met with care coordinators whenever appropriate'' [50] (page 405). However, they also reported that only 67% of the clients in supported employment met with their employment specialist *a single time*, and the remaining clients had too few contacts on average to expect improved vocational outcomes [51]. Had the employment specialists and supervisors been better informed about the practicalities of providing supported employment, such as through technical assistance from experts in the model, they would have known how to better optimize their participation in team meetings, such as by partnering with clinical team members to engage clients and actively involve them in pursuing their stated goals for work.

Bond et al. have noted that efforts to implement IPS supported employment without access to technical assistance often produce poor results [43,77]. Standards for training, consultation, and support in implementing supported employment have been established and reported to be critical to dissemination of IPS in the US [78]. Increasingly, these methods are being employed in the dissemination of IPS outside of the US [45], and there is hope and work underway to use advances in technology to facilitate the training and delivery of high fidelity supported employment [79].

System issues

Challenges to the implementation of supported employment outside of the US are often related to difficulties in getting different social service and treatment systems to work together in the coordinated delivery of vocational services [56]. Mental health treatment and vocational rehabilitation services, and sometimes other rehabilitation services as well, are funded by different agencies or systems in many countries. Conflicting policies, differences in mission, bureaucratic hurdles, and general mistrust have all been identified as obstacles to implementation in some places [43,75,80].

While collaboration between different systems to provide IPS supported employment has been successfully achieved [63], some implementations of supported employment have occurred in places where mental health and vocational rehabilitation services are not integrated [81]. In the US, where vocational rehabilitation services are generally funded by a different system than that which provides mental health treatment, most IPS supported employment programs have been implemented solely by mental health treatment providers, with the designated funding provided by the state or billed as a type of medical service. Commitment to improving employment outcomes for individuals with a serious mental illness by people at the highest levels of leadership is critical to breaking logjams in evidence-based supported employment.

At an even broader level, system issues may also involve addressing conflicts related to larger social regulatory systems, such labor and health insurance. In many countries in Europe, health insurance is paid for by employers, who also face constraints on their ability to fire someone once they are employed [56]. This can lead to employers being reluctant to hire someone with a mental illness due to concerns they may have about the person's ability to perform the work.

Beliefs and attitudes of providers

Traditional mental health treatment has emphasized the amelioration of characteristic symptoms and impairments of serious mental illness, based on the belief that symptom control or remission are prerequisites to improved role functioning, including work. This emphasis on reducing problems and impairments has also traditionally dominated approaches to vocational rehabilitation, such as train-place models. With the primary focus on individual clients' limitations, and little attention given to their personal strengths and supports to optimize work functioning, the potential role of the client in contributing to (or outright directing) his or her own treatment and rehabilitation has been minimized. In traditional mental health treatment, clients have been assumed to be incapable of articulating their own needs and desires, and making informed decisions about their own future, resulting in a paternalistic, hierarchical treatment system. The vision of recovery as the development of a meaningful life despite having a mental

illness [82—84], and of recovery-oriented services aimed at developing collaborative relationships with clients which empower them to identify their treatment and rehabilitation goals and to make decisions about how to achieve them [85], emerged out of a collective effort to challenge and change the well-intentioned, but ''spirit-breaking'' messages conveyed by many mental health professionals [86].

While there have been great strides forward in promulgating the vision of recovery, pessimistic beliefs persist among mental health professionals, family members, the general population, and often clients themselves about what people with a major mental illness are capable of accomplishing, and whether they can make any contributions to society [87—89]. The stigma (and self-stigma) of mental illness is nowhere more apparent than when raising the issue of competitive work for people with serious mental illness. Introducing supported employment, and its emphasis on rapid job search for competitive work, requires confronting widely held beliefs among treatment and rehabilitation providers that clients are incapable of identifying realistic work goals, that they need to be protected from the stress of work or the possibility of failure, and that they are incapable of succeeding at true competitive employment. Supported employment has played a role in efforts to change negative and pessimistic attitudes about mental illness, and to increase awareness of the rights of persons with a serious mental illness [90], including the right to work.

Skepticism among treatment and rehabilitation providers, and sometimes family members as well, about the ability of clients with a serious mental illness to work at competitive jobs has frequently been noted as an obstacle to implementing supported employment [56,75,80]. In some programs this has led to tension between clinicians, who have emphasized symptom containment and a stepwise approach to vocational rehabilitation, and supported employment specialists who have focused on clients' work goals despite their symptoms [91]. In other settings, IPS supported employment has been introduced as a new program without phasing out other programs usually based on the train-place model, diluting the emphasis of supported employment on competitive work [58].

There are no simple solutions to overcoming the fears and biases many mental health professionals have about the ability of people with a serious mental illness to work in supported employment. It is important to recognize that these concerns are shared by others, including family members and the general population, and reflect the belief in most modern societies that serious mental illness prevents people from working altogether, and that such individuals need to be protected from the stress inherent in competitive work. Challenging the belief that employment is not a realistic goal for persons with severe mental illness is critical considering the wealth of evidence to the contrary, as is the case with IPS supported employment.

Changing beliefs about the inability of people with a mental illness to work can be most effectively accomplished by combination of:

- strong leadership commitment to competitive work as a goal, and to implementing supported employment as the best model for achieving the goal;
- building support among multiple stakeholders (e.g., clients, clinicians, family members, members of the business community), and forming a steering committee to regularly review implementation efforts;
- obtaining technical assistance regarding training and implementation of supported employment;
- providing open forums where people are free to express their concerns, as well as their hopes and desires;
- routinely tracking all employment outcomes of clients, and celebrating successes through agency recognition.

While persuasion based on research and the vision of recovery may change the attitudes of some providers, the most significant changes are likely to happen when they are able to witness the results of effectively implemented supported employment: clients obtaining and keeping competitive jobs. Thus, commitment to change is the most critical ingredient to changing attitudes and beliefs about mental illness.

Efforts to modify or improve supported employment

The established effectiveness of IPS supported employment has led to different efforts aimed at either making the model more efficient or cost-effective, or improving its effectiveness even further. Most research evaluating the costs and benefits of different vocational rehabilitation approaches have found that the costs of operating supported employment are comparable to that of other vocational rehabilitation programs, with better employment outcomes [45]. The potential for even more efficient delivery models of supported employment is being evaluated in an RCT by comparing three different ''placement budgets'' for the total number of hours of supported employment provided per client over a two-year period: 25 hours, 45 hours, and 55 hours [92].

As with any evidence-based practice, some clients benefit more than others. Some clients who receive supported employment do not work, and others have difficulties holding down jobs despite the supports they receive. A variety of strategies have been explored to improve the effectiveness of supported employment by providing adjunctive interventions that target factors hypothesized to interfere with benefitting from supported employment. Two RCTs have examined social skills training for improving interpersonal skills at the workplace, and extending job tenure, for clients who obtain work in supported employment [93,94]. While both studies suggested some benefits of the skills training, neither resulted in significant improvements in job tenure, the primary outcome of interest.

Cognitive remediation, which involves systematic efforts to improve cognitive abilities (e.g., attention, concentration, memory, executive functions) through practice of cognitive exercises and learning strategies to cope with or compensate for cognitive difficulties [95,96], may offer greater promise for improving work outcomes in people receiving supported employment. Cognitive impairment is strongly related to employment in people with schizophrenia and other serious mental illnesses [97,98], including in people receiving supported employment [99,100], suggesting

that enhancing cognitive functioning could facilitate benefit from supported employment. One RCT has shown that the addition of a cognitive remediation program (''Thinking Skills for Work'') to a supported employment program both improved cognitive functioning and competitive employment outcomes at two-three years compared to clients who continued to receive supported employment alone [101,102]. More other RCTs have shown that cognitive remediation improves cognitive functioning and work outcomes when added to other models of vocational rehabilitation [103—107]. Several studies are either underway or have recently been completed evaluating the effects of adding cognitive remediation to supported employment.

Summary and conclusions

The IPS supported employment model is distinguished from other, more traditional vocational rehabilitation approaches, by its:

- inclusion of all individuals who want to work, with no exclusion criteria related to client characteristics such as symptoms, substance abuse, or cognitive impairment;
- integration of vocational and clinical services at the level of the treatment team;
- focus on competitive work as the primary goal;
- emphasis on rapid job search with no required prevocational training;
- attention to client preferences related to work and disclosure of mental illness to prospective employers;
- active involvement of the employment specialist in developing jobs for the client;
- benefits counseling to inform clients about the impact of work on disability and health benefits, and potential work incentive programs;
- provision of time-unlimited follow-along supports after a job is obtained to sustain employment or facilitate transition to another job.

The IPS program is standardized, and adherence to the model can be evaluated with fidelity scales. IPS supported employment is the most empirically validated model for improving competitive work outcomes in people with a serious mental illness, with multiple RCTs demonstrating it effectiveness in the US, Canada, Europe, Australia, and Asia. Supported employment has been successfully implemented and shown to be effective in a wide range of different cultural and minority groups and clinical populations, demonstrating the robustness of the model. Various obstacles to the implementation of supported employment have been identified, including funding problems, the absence of leadership, lack of technical assistance in the IPS model, system issues (e.g., mental health, rehabilitation, social welfare), and provider beliefs and attitudes. The success of numerous implementations of supported employment suggests that these obstacles can be overcome or their effects reduced though effective leadership, commitment to change, and accessing expertise for training and consultation in the model.

Multiple efforts are underway to improve training methods for supported employment, and to explore methods of making the program more efficient and more effective. The progress that has been made over the past 20 years in developing and evaluating IPS supported employment offers a beacon of hope for persons with a serious mental illness to realize their employment goals. Increasing access to supported employment is an important priority for service planners who want to help people with a serious mental illness improve the lives through meaningful competitive work, and reduce the social stigma of mental illness.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.

References

[1] Marwaha S, Johnson S. Schizophrenia and employment: a review. Soc Psychiatry Psychiatr Epidemiol 2004;39:337—49.
[2] Marwaha S, Johnson S, Bebbington P, et al. Rates and correlates of employment in people with schizophrenia in the UK, France and Germany. Br J Psychiatry 2007;191:30—7.
[3] Mueser KT, Salyers MP, Mueser PR. A prospective analysis of work in schizophrenia. Schizophr Bull 2001;27:281—96.
[4] Waghorn G, Saha S, Harvey C, et al. 'Earning and learning' in people with psychotic disorders: the second Australian national survey of psychosis. Aust N Z J Psychiatry 2012;46:774—85.
[5] Goldberg RW, Lucksted A, McNary S, et al. Correlates of long-term unemployment among inner-city adults with serious and persistent mental illness. Psychiatr Serv 2001;52:101—3.
[6] Kilian R, Lauber C, Kalkan R, et al. The relationships between employment, clinical status, and psychiatric hospitalisation in patients with schizophrenia receiving either IPS or a conventional vocational rehabilitation programme. Soc Psychiatry Psychiatr Epidemiol 2012;47:1381—9.
[7] Rueda S, Chambers L, Wilson M, et al. Association of returning to work with better health in working-aged adults: a systematic review. Am J Public Health 2012;102:541—56.
[8] Uçok A, Gorwood P, Karadayi G, et al. Employment and its relationship with functionality and quality of life in patients with schizophrenia: EGOFORS Study. Eur Psychiatry 2012;27:422—5.
[9] Bedell JR, Draving D, Parrish A, et al. A description and comparison of experiences of people with mental disorders in supported employment and paid prevocational training. Psychiatr Rehabil J 1998;21:279—83.
[10] Drebing CE, Van Ormer EA, Schutt RK, et al. Client goals for participating in VHA vocational rehabilitation: distribution and relationship to outcome. Rehabil Counsel Bull 2004;47:162—72.
[11] Frounfelker RL, Wilkniss S, Bond GR, et al. Enrollment in supported employment services for clients with a co-occurring disorder. Psychiatr Serv 2011;62:545—7.
[12] McQuilken M, Zahniser JH, Novak J, et al. The Work Project Survey: consumer perspectives on work. J Vocation Rehabil 2003;18:59—68.
[13] Ramsay CE, Broussard B, Goulding SM, et al. Life and treatment goals of individuals hospitalized for first-episode non-affective psychosis. Psychiatr Res 2011;189:344—8.
[14] Corrigan PW, Mueser KT, Bond GR, et al. The principles and practice of psychiatric rehabilitation: an empirical approach. New York: Guilford Press; 2008, 562 p.

[15] Bond GR. Vocational rehabilitation. In: Liberman RP, editor. Handbook of psychiatric rehabilitation. New York: MacMillan; 1992. p. 244—75.
[16] Wehman P, Moon MS. Vocational rehabilitation and supported employment. Baltimore, MD: Paul Brookes; 1988, 363 p.
[17] Becker DR, Bond GR. Supported employment implementation resource kit. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration; 2004.
[18] Becker DR, Drake RE. A working life for people with severe mental illness. New York: Oxford University Press; 2003, 232 p.
[19] Drake RE, Bond GR, Becker DR. IPS supported employment: an evidence-based approach. New York: Oxford University Press; 2012, 204 p.
[20] Swanson SJ, Becker DR, Drake RE, et al. Supported employment: a practical guide for practitioners and supervisors. Lebanon NH: Dartmouth Psychiatric Research Center; 2008, 164 p.
[21] Swanson SJ, Becker DR. Supported employment: applying the Individual Placement and Support (IPS) model to help clients compete in the workforce. Updated and expanded ed. Center City, MN: Hazelden; 2011, 229 p.
[22] Bond GR, Becker DR, Drake RE, et al. A fidelity scale for the individual placement and support model of supported employment. Rehabil Counsel Bull 1997;40:265—84.
[23] Bond GR, Campbell K, Evans LJ, et al. A scale to measure quality of supported employment for persons with severe mental illness. J Vocation Rehabil 2002;17:239—50.
[24] Bond GR, Becker DR, Drake RE. Measurement of fidelity of implementation of evidence-based practices: case example of the IPS Fidelity Scale. Clin Psychol Sci Pract 2011;18:126—41.
[25] Beard JH, Propst RN, Malamud TJ. The Fountain House model of rehabilitation. Psychosoc Rehabil J 1982;5:47—53.
[26] Rapp CA, Goscha RJ. The Strengths Model: case management with people with psychiatric disabilities. Second ed. New York: Oxford University Press; 2006, 320 p.
[27] Kukla M, Bond GR, Xie H. A prospective investigation of work and nonvocational outcomes in adults with severe mental illness. J Nerv Ment Dis 2012;200:214—22.
[28] Marwaha S, Balachandra S, Johnson S. Clinicians' attitudes to the employment of people with psychosis. Soc Psychiatry Psychiatr Epidemiol 2008;44:349—60.
[29] Andrews H, Barker J, Pittman J, et al. National trends in vocational rehabilitation: a comparison of individuals with physical disabilities and individuals with psychiatric disabilities. J Rehabil 1992;58:7—16.
[30] Anthony WA, Jansen MA. Predicting the vocational capacity of the chronically mentally ill. Am Psychol 1984;39: 537—44.
[31] Mueser KT, Clark RE, Haines M, et al. The Hartford study of supported employment for severe mental illness. J Consult Clin Psychol 2004;72:479—90.
[32] Macias C, Kinney R, Rodican C. Transitional employment: an evaluative description of Fountain House practice. J Vocation Rehabil 1995;5:151—8.
[33] Cook JA, Leff HS, Blyler CR, et al. Results of a multisite randomized trial of supported employment interventions for individuals with severe mental illness. Arch Gen Psychiatry 2005;62:505—12.
[34] Bond GR, Dietzen LL, McGrew JH, et al. Accelerating entry into supported employment for persons with severe psychiatric disabilities. Rehabil Psychol 1995;40:91—111.
[35] Becker DR, Drake RE, Farabaugh A, et al. Job preferences of clients with severe psychiatric disorders participating in supported employment programs. Psychiatr Serv 1996;47:1223—6.
[36] Mueser KT, Becker DR, Wolfe R. Supported employment, job preferences, and job tenure and satisfaction. J Ment Health 2001;10:411—7.
[37] Corrigan PW, Reedy P, Thadani D, et al. Correlates of participation and completion in a job club for clients with psychiatric disability. Rehabil Counsel Bull 1995;39:42—53.
[38] Bond GR, Kukla M. Impact of follow-along support on job tenure in IPS supported employment. J Nervous Ment Dis 2011;199:150—5.
[39] MacDonald-Wilson KL, Rogers ES, Ellison ML, et al. A study of the social security work incentives and their relation to perceived barriers to work among persons with psychiatric disability. Rehabil Psychol 2003;48:301—9.
[40] Tremblay T, Smith J, Xie H, et al. Effect of benefits counseling services on employment outcomes for people with psychiatric disabilities. Psychiatr Serv 2006;57:816—21.
[41] Stein LI, Santos AB. Assertive community treatment of persons with severe mental illness. New York: Norton; 1998, 288 p.
[42] Bond GR, Drake RE, Becker DR. An update on randomized controlled trials of evidence-based supported employment. Psychiatr Rehabil J 2008;31:280—90.
[43] Bond GR, Drake RE, Becker DR. Generalizability of the individual placement and support (IPS) model of supported employment outside the US. World Psychiatr 2012;11:32—9.
[44] Heffernan J, Pilkington P. Supported employment for persons with mental illness: systematic review of the effectiveness of individual placement and support in the UK. J Ment Health 2011;20:368—80.
[45] Luciano AE, Drake RE, Bond GR, et al. Evidence-based supported employment for people with severe mental illness: past, current, and future research. J Vocation Rehabil 2014;40:1—13.
[46] Marshall T, Goldberg RW, Braude L, et al. Supported employment: assessing the evidence. Psychiatr Serv 2014;65:16—23.
[47] Rinaldi M, Killackey E, Smith J, et al. First episode psychosis and employment: a review. Int Rev Psychiatry 2010;22:148—62.
[48] Lehman AF, Goldberg R, Dixon LB, et al. Improving employment outcomes for persons with severe mental illnesses. Arch Gen Psychiatry 2002;59:165—72.
[49] Heslin M, Howard L, Leese M, et al. Randomized controlled trial of supported employment in England: 2-year follow-up of the supported work and needs (SWAN) study. World Psychiatry 2011;10:132—7.
[50] Howard LM, Heslin M, Leese M, et al. Supported employment: randomised controlled trial. Br J Psychiatry 2010;196:404—11.
[51] Latimer E. An effective intervention delivered at subtherapeutic dose becomes an ineffective intervention. Br J Psychiatry 2010;196:341—2.
[52] Bell MD, Lysaker PH, Milstein RM. Clinical benefits of paid work activity in schizophrenia. Schizophr Bull 1996;22:51—67.
[53] Bond GR, Resnick SG, Drake RE, et al. Does competitive employment improve nonvocational outcomes for people with severe mental illness? J Consult Clin Psychol 2001;69:489—501.
[54] Mueser KT, Becker DR, Torrey WC, et al. Work and nonvocational domains of functioning in persons with severe mental illness: a longitudinal analysis. J Nerv Ment Dis 1997;185:419—26.
[55] Drake RE, Frey W, Bond GR, et al. Assisting social security disability insurance beneficiaries with schizophrenia, bipolar disorder, or major depression in returning to work. Am J Psychiatry 2013;170:1433—41.
[56] Fioritti A, Burns T, Hilarion P, et al. Individual placement and support in Europe. Psychiatr Rehabil J 2014;37:123—8.
[57] Michon H, van Busschbach JT, Stant DAD, et al. Effectiveness of individual placement and support for people with severe

mental illness in the Netherlands: a 30 months randomized controlled trial. Psychiatr Rehabil J 2014;37:129—36.
[58] Corbière M, Lanctôt N, Lecomte T, et al. A Pan-Canadian evaluation of supported employment programs dedicated to people with severe mental disorders. Commun Ment Health J 2010;46:44—55.
[59] Morris A, Waghorn G, Robson E, et al. Implementation of evidence-based supported employment in regional Australia. Psychiatr Rehabil J 2014;37:144—7.
[60] Tsang HW, Chan A, Wong AP. Vocational outcomes of an integrated supported employment program for individuals with persistent and severe mental illness. J Behav Ther Exp Psychiatry 2009;40:292—305.
[61] Wong KK, Chiu R, Tang B, et al. A randomized controlled trial of a supported employment program for persons with long-term mental illness in Hong Kong. Psychiatr Serv 2008;59:84—90.
[62] Oshima I, Sono T, Bond GR, et al. A randomized controlled trial of individual placement and support in Japan. Psychiatr Rehabil J 2014;37:137—43.
[63] Hoffmann H, Jäckel D, Glauser S, et al. A randomised controlled trial of the efficacy of supported employment. Acta Psychiatr Scand 2012;125:157—67.
[64] Burns T, Catty J, Becker T, et al. The effectiveness of supported employment for people with severe mental illness: a randomized controlled trial. Lancet 2007;370:1146—52.
[65] Latimer EA, Lecomte T, Becker DR, et al. Generalisability of the individual placement and support model of supported employment: results of a Canadian randomised controlled trial. Br J Psychiatry 2006;189:65—73.
[66] Killackey E, Jackson HJ, McGorry PD. Vocational intervention in first-episode psychosis: a randomised controlled trial of individual placement and support versus treatment as usual. Br J Psychiatry 2008;193:114—20.
[67] Drake RE, McHugo GJ, Bebout RR, et al. A randomized clinical trial of supported employment for inner-city patients with severe mental illness. Arch Gen Psychiatry 1999;56:627—33.
[68] Mueser KT, Bond GR, Essock SM, et al. The effects of supported employment in Latino consumers with severe mental illness. Psychiatr Rehabil J 2014;37:113—22.
[69] Mueser KT, Campbell K, Drake RE. The effectiveness of supported employment in people with dual disorders. J Dual Diagn 2011;7:90—102.
[70] Davis LL, Leon AC, Toscano R, et al. A randomized controlled trial of supported employment among veterans with posttraumatic stress disorder. Psychiatr Serv 2012;63:464—70.
[71] Rinaldi M, Perkins R, McNeil K, et al. The individual placement and support approach to vocational rehabilitation for young people with first episode psychosis in the UK. J Ment Health 2010;19:483—91.
[72] Ottomanelli L, Goetz LL, Suris A, et al. Effectiveness of supported employment for veterans with spinal cord injuries: results from a randomized multisite study. Arch Phys Med Rehabil 2012;93:740—7.
[73] Ottomanelli L, Barnett SD, Goetz LL. Effectiveness of supported employment for veterans with spinal cord injury: 2-year results. Arch Phys Med Rehabil 2014;95:784—90.
[74] Bejerholm U, Larsson L, Hofgren C. Individual placement and support illustrated in the Swedish welfare system: a case study. J Vocation Rehabil 2011;35:59—72.
[75] Hasson H, Andersson M, Bejerholm U. Barriers in implementation of evidence-based practice: supported employment in Swedish context. J Health Organ Manage 2011;25:332—45.
[76] Rinaldi M, Miller L, Perkins R. Implementing the individual placement and support (IPS) approach for people with mental health conditions in England. Int Rev Psychiatry 2010;22:163—72.
[77] Bond GR, Drake RE, Becker DR. Implementation of IPS supported employment around the world: planned vs. unplanned dissemination. A commentary on Menear et al. Soc Sci Med 2011;72:1036—8.
[78] Becker DR, Drake RE, Bond GR, et al. Best practices: a national mental health learning collaborative on supported employment. Psychiatr Serv 2011;62:704—6.
[79] Lord SE, McGurk SR, Nicholson J, et al. The potential of technology for enhancing IPS supported employment. Psychiatr Rehabil J 2014;37:99—106.
[80] van Erp NH, Giesen FB, van Weeghel J, et al. A multisite study of implementing supported employment in the Netherlands. Psychiat Serv 2007;58:1421—6.
[81] Waghorn G, Collister L, Killackey E, et al. Challenges to implementing evidence-based supported employment in Australia. J Vocation Rehabil 2007;27:29—37.
[82] Anthony WA. Recovery from mental illness: the guiding vision of the mental health service system in the 1990s. Psychosoc Rehabil J 1993;16:11—23.
[83] Davidson L. Living outside mental illness: qualitative studies of recovery in schizophrenia. New York: New York University Press; 2003, 227 p.
[84] Deegan PE. Recovery as a journey of the heart. Psychosoc Rehabil J 1996;19:91—7.
[85] Farkas MD. The vision of recovery today: what it is and what it means for services. World Psychiatr 2007;6:4—10.
[86] Deegan PE. Spirit breaking: when the helping professionals hurt. JHP 1990;18:301—13.
[87] Bromley E, Gabrielian S, Brekke B, et al. Experiencing community: perspectives of individuals diagnosed as having serious mental illness. Psychiatr Serv 2013;64:672—9.
[88] Hinshaw SP, Cicchetti D. Stigma and mental disorder: conceptions of illness, public attitudes, personal disclosure, and social policy. Dev Psychopathol 2000;12:555—98.
[89] Russinova Z, Rogers ES, Gagne C, et al. A randomized controlled trial of a peer-run anti-stigma photovoice intervention. Psychiatr Serv 2014;65:242—6.
[90] Menear M, Reinharz D, Corbière M, et al. Organizational analysis of Canadian supported employment programs for people with psychiatric disabilities. Soc Sci Med 2011;72:1028—35.
[91] Shepherd G, Bacon J, Lockett H, et al. Establishing IPS in clinical teams - Some key themes from a national implementation program. J Rehabil 2012;78:30—6.
[92] Nordt C, Brantschen E, Kawohl W, et al. 'Placement budgets' for supported employment - improving competitive employment for people with mental illness: study protocol of a multicentre randomized controlled trial. BMC Psychiatry 2012;12:165.
[93] Mueser KT, Aalto S, Becker DR, et al. The effectiveness of skills training for improving outcomes in supported employment. Psychiatr Serv 2005;56:1254—60.
[94] Wallace CJ, Tauber R. Supplementing supported employment with workplace skills training. Psychiatr Serv 2004;55:513—5.
[95] McGurk SR, Mueser KT, Covell NH, et al. Mental health system funding of cognitive enhancement interventions for schizophrenia: summary and update of the New York Office of Mental Health Expert Panel and Stakeholder Meeting. Psychiatr Rehabil J 2013;36:133—45.
[96] Wykes T, Huddy V, Cellard C, et al. A meta-analysis of cognitive remediation for schizophrenia: methodology and effect sizes. Am J Psychiatry 2011;168:472—85.
[97] Gold JM, Goldberg RW, McNary SW, et al. Cognitive correlates of job tenure among patients with severe mental illness. Am J Psychiatry 2002;159:1395—402.
[98] McGurk SR, Mueser KT. Cognitive functioning, symptoms, and work in supported employment: a review and heuristic model. Schizophr Res 2004;70:147—74.

[99] McGurk SR, Mueser KT. Cognitive and clinical predictors of work outcomes in clients with schizophrenia receiving supported employment services: 4-year follow-up. Admin Policy Ment Health 2006;33:598—606.
[100] McGurk SR, Mueser KT, Harvey PD, et al. Cognitive and clinical predictors of work outcomes in clients with schizophrenia. Psychiatr Serv 2003;54:1129—35.
[101] McGurk SR, Mueser KT, Feldman K, et al. Cognitive training for supported employment: 2-3 year outcomes of a randomized controlled trial. Am J Psychiatry 2007;164:437—41.
[102] McGurk SR, Mueser KT, Pascaris A. Cognitive training and supported employment for persons with severe mental illness: one-year results from a randomized controlled trial. Schizophr Bull 2005;31:898—909.
[103] Bell MD, Bryson G, Greig T, et al. Neurocognitive enhancement therapy with work therapy. Arch Gen Psychiatry 2001;58:763—8.
[104] Bell MD, Bryson GJ, Greig TC, et al. Neurocognitive enhancement therapy with work therapy: productivity outcomes at 6- and 12-month follow-ups. J Rehabil Res Dev 2005;42:829—38.
[105] Bell MD, Fiszdon J, Greig T, et al. Neurocognitive enhancement therapy with work therapy in schizophrenia: 6-month follow-up of neuropsychological performance. J Rehabil Res Dev 2007;44(5):761—70.
[106] Lindenmayer JP, McGurk SR, Mueser KT, et al. A randomized controlled trial of cognitive remediation among inpatients with persistent mental illness. Psychiatr Serv 2008;59:241—7.
[107] McGurk SR, Mueser KT, DeRosa T, et al. Work, recovery, and comorbidity in schizophrenia: a randomized controlled trial of cognitive remediation. Schizophr Bull 2009;35:319—35.