
The effectiveness of supported employment for young adults with severe mental illness in improving work outcomes

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Title of the review

The effectiveness of supported employment for young adults with severe mental illness in improving work outcome

Background

Employment embodies recovery for people with severe mental illness (Strickler, Whitley, Becker, & Drake, 2009), especially among young adults recently diagnosed with a psychiatric disorder (Harvey, Modini, Christensen, & Glozier, 2013; E. J. Killackey, Jackson, Gleeson, Hickie, & McGorry, 2010). Competitive employment is a primary goal for people with severe mental disorders (SMD) (Drake, Mchugo, Becker, Anthony, & Clark, 1996). Various studies suggested that work rehabilitation and employment can result in greater income, community integration, and improvement in symptom severity, increased self-esteem, and quality of life (Gary R Bond et al., 2001).

Vocational rehabilitation for people with severe mental illnesses aims towards increased participation in society. The primary means to reach this goal is reintegration into competitive employment. Mainly, two approaches have to be distinguished. In traditional rehabilitation programs patients are trained in vocational skills first and placed in jobs according to their individual capacity afterwards (Watzke, Galvao, & Brieger, 2009). Contrarily, supported employment (SE) is trying to place clients in competitive jobs without any extended preparation (Gary R Bond et al., 2001). Recent research (G. R. Bond, Drake, & Becker, 2008) indicates that in a growing number of countries worldwide SE, especially the individual placement and support model (IPS) was found to be more effective than traditional approaches (Gary R Bond et al., 2001). All states in US have departments of vocational rehabilitation that provided employment services to people with psychiatric disorders and others with vocational needs. Depending on the state, local department of vocational rehabilitation may provide programs such as sheltered workshops, vocational training programs, enclave jobs, and supported employment (McGurk & Mueser, 2014).

SE is based on the philosophy that people with schizophrenia and other severe mental illness are capable of working regular jobs in the community that pay competitive wages, provided that they are given sufficient supports (McGurk & Mueser, 2014). In contrast to other approaches to vocational rehabilitation, supported employment does not assume that people with a mental illness require either extensive prevocational training or “protected” employment experiences before getting an independent competitive job. Rather, supported employment programs are based on the premise that people can acquire and keep competitive jobs relatively quickly after joining the program (McGurk & Mueser, 2014). After estimating expected outcomes of evidence-based supported employment and found out that the majority of IPS participants obtain competitive employment, at a far higher rate than clients enrolled in other vocational services (G. R. Bond et al., 2008).

In the early 1990s, Becker and Drake developed and evaluated a program for SE in people with severe mental illness, called Individual Placement and Support (IPS) (Becker & Drake, 1993). IPS is the most comprehensive and standardized approach to vocational rehabilitation for persons with severe mental illness (Gary R. Bond, Drake, & Becker, 2012). The IPS model is a highly defined form of SE that is based on seven key principles, including a focus on securing competitive employment positions, attending to consumers' preferences, and integration with mental health treatment teams (Becker & Drake, 2003). IPS helps people with severe mental illness work at regular jobs of their choosing (Gary R. Bond et al., 2012).

SE for people with severe mental illness is an evidence-based practice, based on converging findings from eight randomized controlled trials and three quasi-experimental studies (Gary R Bond et al., 2001). The critical ingredients of SE have been well described, and a fidelity scale differentiates SE programs from other types of vocational rehabilitation. The effectiveness of SE appears to be generalizable across a broad range of client characteristics and community settings. More research is needed on long-term outcomes and on cost-effectiveness (Gary R Bond et al., 2001). As a highly defined form of SE, IPS has proven, through a number of randomised controlled trials, to be an effective intervention for people with chronic mental illness (Marshall, Bond, & Huxley, 2001).

SE programs in general, and IPS in particular, have produced consistently better rates of competitive employment and employment of any type than traditional vocational rehabilitation (Twamley, Jeste, & Lehman, 2003). Although IPS appears effective, it is not effective for all participants, and further improvements should be made to produce positive outcomes for more consumers (Twamley, Jeste, & Lehman, 2003). This study combined IPS participants from the four studies into one composite group and control participants into another, it conducted secondary analyses of a pooled sample from four randomized controlled trials employing a common research protocol that included a standardized measurement battery and rigorous fidelity monitoring of the IPS model. This analysis of pool study supports a small number of previous studies in showing that IPS is highly effective in helping young adults with severe mental illness to attain competitive employment. When young adults acquire competitive jobs and initiate a path toward normal adult roles, they may avoid the cycle of disability and psychiatric patient roles that are demeaning and demoralizing (G. R. Bond, Drake, & Campbell, 2016).

In one of the studies (E. Killackey, Jackson, & Mcgorry, 2008), IPS + treatment as usual (TAU) (the vocational- intervention group) was compared with TAU alone as there is no established evidence-based vocational intervention for those with first-episode psychosis in people aged between 15-25 years. TAU as usual consisted of participants continuing to receive Early Psychosis Prevention and Intervention. This study found out that IPS has good potential to address the problem of vocational outcome in people with first-episode psychosis. This has economic, social and health implications. This study found that compared with TAU, even where that included referral to external employment agencies, there was a significant advantage to a vocational intervention for young people with first-episode psychosis co-located with their clinical service. This advantage was evident in that those in the intervention group obtained more jobs, worked more hours, earned more money and

lasted longer in their jobs than those in the TAU group. Further, the jobs that these participants were successful in acquiring covered a wide range of occupations that were congruent with their own interests and needs. The most effective early- intervention programmes are known to reduce the duration of untreated illness from well over a year to only a few months.²⁸ Vocational intervention at this time has tremendous potential not only to provide short-term employment experience and skills, but also to prevent development of long-term unemployment and its associated personal, economic and health costs (E. Killackey et al., 2008). IPS principles can be successfully extended to integrate supported education and SE within one treatment program. The distribution of return to school, work, or their combination in this group of individual with recent-onset schizophrenia supports the view that an integrated program of supported education and SE fits this initial period of illness (Nuechterlein et al., 2008). Although the objects in these research is young, but it because the population in first episode of schizophrenia usually is young adults. So there is still a lack of research about effectiveness of SE/IPS for young adults with severe mental illness.

In the effect of IPS intervention on young people with severe mental illness, some scholars believe that SE/IPS is effective (G. R. Bond et al., 2016; E. Killackey et al., 2008). Others believe that SE/IPS is not effective in young people, and is not much different from TAU interventions (Wewiorski & Fabian, 2004). Wewiorski and Fabian (2004) examined the association between demographic factors and employment outcomes in a literature review and meta-analysis of research published in the years 1989-2004. In their literature review, they found that younger age was consistently associated with both getting and keeping a job. However, in their meta- analysis of 5 studies that related age to employment attainment, age was not found to have a significant effect (Burke-Miller et al., 2012). Clinicians have proposed and evaluated a range of vocational program models for young adults, aged 30 and under (Burke-Miller et al., 2012). Until recently, there is no employment model including SE/IPS has been clearly established as the recommended model for young adults (G. R. Bond et al., 2016).

Young adults with severe mental illness aspire to the same goals as their peers who do not have psychiatric disorders. But most of young adults with severe mental illness are neither competitively employed nor enrolled in educational programs. It is an important practical significance for the development of society that the return to work, the acquisition of knowledge, the rehabilitation of mental illness and the reconstruction of other social functions on the young adults with mental illness. At present, clinicians have proposed and evaluated a range of vocational program for young adults aged 30 and below. But compared to alternative vocational services and a TAU, whether SE/IPS has big advantage, there is no clear conclusion for young adults with severe mental illness. Therefore, a systematic review of young adults with severe mental illness in effectiveness of SE/IPS is necessary, to support the implementation of policies related to SE, to improve their mental health and quality of life.

Objective

The objective of this review is: to assess the effectiveness of SE/IPS for young adults with severe mental illnesses.

Existing reviews

There are some systematic review show the evidences that SE/IPS is an effective intervention when compared with other vocational rehabilitation on adults and young adults. The existing systematic reviews are divided respectively into two parts: aduts and young adults.

Reviews on adults

A systematic review showed that the number, consistency, and effect sizes of studies of evidence-based SE establish it as one of the most robust interventions available for adults with severe mental illness. It reported that the competitive employment rate was significantly higher for the IPS condition than for controls in all 11 studies. While demographic and clinical factors show modest associations with competitive employment outcomes, the strongest predictor of employment outcomes is the provision of services according to the IPS model (G. R. Bond & Drake, 2008).

A meta-analysis showed that adults in SE earned more and worked more hours per month than those who had had prevocational training. SE is more effective than prevocational training at helping adults with severe mental illness obtain competitive employment (Crowther, Marshall, Bond, & Huxley, 2001). In another meta-analysis compares SE with other approaches for finding employment (Kinoshita et al., 2013). This study found out that SE is effective in improving a number of vocational outcomes relevant to adults with severe mental illness, though there appears to exist some overall risk of bias in terms of the quality of individual studies. In terms of their primary outcome, SE seems to significantly increase levels of any employment obtained during the course of studies. SE also seems to increase length of competitive employment when compared with other vocational approaches. In recent year, Modini and associates conducted a meta-analysis and found that IPS is an effective intervention across a variety of settings and economic conditions and is more than twice as likely to lead to competitive employment when compared with traditional vocational rehabilitation (Modini et al., 2016). Meta-regressions indicated that neither geographic area nor unemployment rates affected the overall effectiveness of IPS. Even when a country's GDP growth was less than 2% IPS was significantly more effective than traditional vocational training, and its benefits remained evident over 2 years.

Reviews on young adults

A secondary analysis for seven randomized trials of vocational services for clients with severe mental illness examined employment outcomes for two age subgroups (ages 18-24 and ages 25-30) (Burke-Miller et al., 2012). In the older subgroup (ages 25-30), participants in the

experimental condition had better employment outcomes than those in the control condition, but the findings were reversed for the 18-24 subgroup (Burke-Miller et al., 2012). A meta-analysis conducted by Bond and associates in 2015 show that for young adults with early psychosis, in early intervention programs, SE moderately increases employment rates but does not increase rates of enrolment in education.

Summary

In summary, the majority of existing systematic review on SE especially of IPS has found a good effect on improving the employment of adults with mental illnesses, but there is a lack of evidence to support SE/IPS effectively promote the employment of young people with serious mental illness. Therefore, there is a need for further review on this special group. The following is a list of evidence of SE/IPS for young adults with severe mental illness.

Systematic reviews

Kinoshita, Y., Furukawa, T. A., Kinoshita, K., Honyashiki, M., Omori, I. M., Marshall, M., Kingdon, D. (2013). Supported employment for adults with severe mental illness. *Cochrane Database Syst Rev*(9), Cd008297. doi:10.1002/14651858.CD008297.pub2

Bond, G. R., Drake, R. E., & Luciano, A. (2015). Employment and educational outcomes in early intervention programmes for early psychosis: a systematic review. *Epidemiol Psychiatr Sci*, 24(5), 446-457. doi:10.1017/s2045796014000419

Modini, M., Tan, L., Brinchmann, B., Wang, M. J., Killackey, E., Glozier, N., Harvey, S. B. (2016). Supported employment for people with severe mental illness: systematic review and meta-analysis of the international evidence. *Br J Psychiatry*, 209(1).

Crowther, R. E., Marshall, M., Bond, G. R., & Huxley, P. (2001). Helping people with severe mental illness to obtain work: systematic review. *Bmj*, 322(7280), 204-208.

Bond, G. R., Drake, R. E., Mueser, K. T., & Becker, D. R. (1997). An update on supported employment for people with severe mental illness. *Psychiatr Serv*, 48(3), 335-346.

Suijkerbuijk, Y. B., Schaafsma, F. G., Van, J. M., Ojajärvi, A., Corbière, M., & Anema, J. R. (2015). Interventions for obtaining and maintaining employment in adults with severe mental illness, a network meta-analysis. *Cochrane Database Syst Rev*, 9(1).

van Rijn, R. M., Carlier, B. E., Schuring, M., & Burdorf, A. (2016). Work as treatment? The effectiveness of re-employment programmes for unemployed persons with severe mental health problems on health and quality of life: a systematic review and meta-analysis. *Occupational & Environmental Medicine*, 73(4), 275-279.

Intervention

Describe the eligible intervention(s) and comparison(s) clearly, in plain language. What is given, by whom, to whom, and for how long? What are the comparison conditions (what is usually provided to control/comparison groups who don't receive the intervention)? Describe any similar interventions that will not be eligible and justify the exclusion.

Eligible intervention

In this study, SE/IPS is intervention for those young adults with severe mental illness.

Comparison

The control groups used in the included studies were TAU, traditional vocational rehabilitation (TVR), psychosocial vocational rehabilitation programs and other vocational intervention.

Population

Specify the types of populations to be included and excluded, with thought given to aspects such as demographic factors and settings.

Inclusion criteria

Young adults (under 30 years old) with severe mental illness/disorders, including schizophrenia, schizoaffective disorder, bipolar, bipolar disorder, recurrent major depression, pf borderline personality disorder.

Outcomes

The primary outcome was number of subjects obtaining and staying in competitive employment. Secondary outcomes were clinical outcomes.

Primary outcomes

Competitive employment indicators are used to measure the primary outcomes, such as: percentage of participants who obtained employment, the number of hours worked per week, the mean wages earned and the mean job tenure.

Secondary outcomes

Secondary outcome indicators include the Rosenberg Self Esteem Scale (Rosenberg, 1969), Brief Psychiatric Rating Scale (BPRS), the MANSA (Priebe, Huxley, Knight, & Evans, 1999) for quality of life, the Mental Health Inventory-5 (Ware, Kosinski, & Gandek, 2000).

Study designs

List the types of study designs to be included and excluded (please describe eligible study designs). Where the review aims to include quantitative and qualitative evidence, specify which of the objectives noted above will be addressed using each type of evidence.

Randomised controlled trials (RCT) and quasi-experimental study designs that assess the effects of SE in young adults with severe mental illness.

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Roles and responsibilities

Name	Subject	Role in the Review	Responsibility
Yue Bai	Systematic review methods and Information retrieval	Principal investigator/lead co-author	Lead the review in screening, data extraction, appraisal, and synthesis; coordination with advisory group
Zhaowen Cheng	Statistical analysis	Meta-analysis expert and co-author	Responsible for screening, data extraction and specific meta-analysis
Wei Bian	Systematic review methods or Information retrieval	Quantitative analysis researcher and co-author	Responsible for screening, data extraction, systematic review methods or Information retrieval
Zhenggang Bai	Systematic review methods and Statistical analysis	Quantitative analysis expert and co-author	Advise/critique on the methodological aspects of systematic review methods
Jia Li	Systematic review methods and Statistical analysis	Quantitative analysis expert and co-author	Advise/critique on the methodological aspects of systematic review method
Iris Chi	Systematic review methods and Statistical analysis	Quantitative analysis expert and co-author	Advise/critique on the methodological aspects of systematic review method

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None of the authors is involved in the development of relevant interventions, primary research, or prior published reviews on the topic.

Preliminary timeframe

Date you plan to submit a draft protocol: 30 October 2018

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