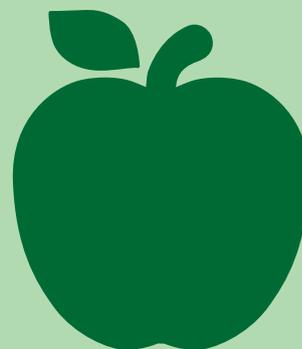


Evidence-based methods for enhancing the labour- force entrance of people with mental disabilities

A systematic literature review



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Foreword – the Swedish Social Insurance Agency

The Swedish Social Insurance Agency (SSIA) was commissioned by the government to examine the situation of younger working-age persons (18–29) who were on temporary disability benefits due to severe mental illness. The aim of the temporary benefit is to emphasize the importance of making a transition into normal working life for those for whom this is possible. Within the Swedish institutional framework, this transition is usually facilitated by Labour Market Services. It was with this aim that the SSIA commissioned in 2011 the Department of Medical Sciences, Uppsala University, to perform a literature review of evidence-based measures for assisting (younger) people with mental illness or disability in making the transition into normal working life.

The original review was published in Swedish in 2012 by the SSIA as a part of their report to the government. The review was updated in 2015, and the study rewritten in English to make it available to a non-Swedish audience. This is the English language version of the revised report. The main result of the study is that Supported Employment, and specifically Individual Placement and Support (IPS), emerges as an effective evidence-based measure, especially for persons with mental illness or mental disability.

Supported employment consists of several components, which in principle can be removed from or added to the original package, but it has never been evaluated in a Swedish institutional setting, including the Swedish labour market structural context. In 2013, the SSIA and Swedish Employment Services were commissioned by the government to perform scientifically based experiments to help determine whether the concept of supported employment works in a Swedish context. This has led to the creation of an experiment in assisting persons 18-29 with mental disabilities in gaining access to the regular labour market. The experiment encompasses communities in all parts of Sweden and is designed to test three competing models of supported employment. The first results will be tabulated and evaluated in 2017. The Swedish-language version of this literature review offered a point of departure for the design of this experiment. Of course, the usual disclaimer holds; that is, the opinions expressed in this report are those of its authors, and not necessarily those of the institutions they represent.

Stockholm, June 2015

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Authors' Preface – the Department of Medical Sciences, Uppsala University

The report is a systematic literature review that seeks to answer a question posed by the SSIA: Is there scientific-based evidence-of methods that improve the prospects of entrance to and continued participation in the labour market of young people with a history of mental illness or dysfunction?

The literature review was initiated by retrieving original published works from six research databases: PubMed, PsycINFO, Social Sciences Citation Index, SciVerse SCOPUS, International Bibliography of the Social Sciences (IBSS), and EconLit. A review of what is commonly referred to as “grey literature” was not included in the group’s assignment. The material retrieved from the databases was reviewed in three steps. The first was to select articles for consideration and then to review their abstracts to choose candidates for full scrutiny. The second was to examine fully the contents of the selected documents. Finally, a small number of documents were selected for detailed examination on the basis of criteria of relevance and quality.

The identification and selection of articles was carried out in three stages: first in February 2011 at the outset of the study, covering the time period January 1st 2001 through December 31st 2011; and, then, for an update of the collected material, extending the collection through to March 31st 2015, in July 2013 and April 2015. This resulted in a total of 5,763 documents. In the processing of the database, the 2015 study differs from the 2012 study with regard to quality requirements in that it admits only reports based on randomised controlled trials for assessing strength of evidence. In the 2015 report, the references to practices in Denmark, Finland, Norway and UK have been replaced by a detailed comment on practices in Sweden with regard to the vocational rehabilitation of persons with severe mental illness.

The conclusions drawn from the literature review have not changed between 2012 and 2015, but the additional data searches have added to the documentary database. This allowed the authors to set higher quality requirements in their scrutiny of the evidence base. Readers wishing to revisit the 2012 report (in Swedish) will find a reference to it in the bibliography of the current report (also available on line at <https://www.forsakringskassan.se/wps/wcm/connect/e067258e-03c2-42b6-b87b-9b257d48d2de/socialforsakringsrapport-2013-03.pdf?MOD=AJPERES>).

The searches yielded scientific documents, the abstracts or summaries of which were then examined. They were supported by the Medical Science Library and the Economic Science Library (Economicum) at Uppsala

University. Ulla Jacobsson (Medical Science Library) and Maria Berg and Cecilia Petersson (Economicum) were most helpful in conceiving and constructing our search strategies, and in providing valuable advice.

The results show that, in principle, the methods consistent with the requirements of the systematic literature review were based on two different approaches: Individual Placement and Support (IPS), and Cognitive Behavioural Therapy or Training (CBT).

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Summary

Young people with a mental dysfunction or behavioural disturbance more frequently than not encounter difficulties when seeking employment on the regular labour market. In Sweden, financial support in the form of activity compensation may be granted to people 19–29 years of age by the Swedish Social Insurance Agency (SSIA). Activity compensation is designed on the premise that those who are able to do so, with the aid of the SSIA and employment services, can make the transition from benefit status into the regular labour force or become engaged in some form of subsidized employment.

This literature review was carried out in accordance with an agreement between the Swedish Social Insurance Agency (SSIA), which commissioned the Department of Environmental and Occupational Medicine, Uppsala University conduct a search of the scientific literature for evidence-based methods for strengthening the employability of young people with severe mental illness or functional disability.

The search of the literature was structured and performed using six computer-based scientific bibliographic databases: PubMed, PsycINFO, the Social Sciences Citation Index (ISI), SciVerse (SCOPUS), EconLit, and the International Bibliography of the Social Sciences (IBSS).

The overall search led to the identification of 5,763 documents, published over the period 2001 through to March 31st 2015, were retrieved. The material was examined in relation to the following quality criteria: relevance, study design (longitudinal and controlled), and employment and work outcomes. After filtering documents according to these criteria, 328 articles remained for scrutiny. On further examination, the document population was condensed to a set of 25 randomized controlled trials (RCT), which were assessed for strength of evidence.

Two dominant models – Individual Placement and Support (IPS) and Cognitive Behavioural Treatment/Training (CBT) – were identified with regard to strengthening employability, as reflected in competitive (normal) employment, supported employment, time in employment, time at work, and accumulated income from employment. Of the 25 evidence-graded studies, 17 were solely IPS studies, six were CBT studies, one was a mix of IPS and CBT, and one concerned a comprehensive multimodal intervention for autistic syndrome disorder (ASD).

IPS was found to have clear effects on employability indicators in many countries, beside the US and Canada also in European and Asian countries and Australia with 50–100% enhancements. The strength of evidence supporting its effectiveness was assessed as moderately strong. The review group concluded that IPS is an evidence-based strategy for providing vocational support to mentally disabled people. Factors such as severity of

illness, motivation, and selection/eligibility were seen to modify the employment effects. IPS is conditional on contextual factors, including labour market situation, how national social insurance systems function with regard to the study group, and how interventions are organised and implemented.

CBT in its many forms is still at a stage of development requiring independent replication and confirmation for it to be designated as an evidence-based method for enhancing the employability of people with severe mental illness. However, modest to strong effects of CBT were observed on the employability indicators when it was combined with supported or competitive employment. In assessing strength of evidence in documents describing vocational interventions, the focus was on effects related to employment and time at work.

Introduction

Shortage of jobs and mass unemployment are severe and growing societal problems in a global perspective. At the same time, the notion that formal membership of the workforce is central to human life has become a leading direction of thought. The idea of centrality of work acts as a moral compass, bearing the message that all who so wish and find it possible are accepted in their attempts to achieve a work output in the citizen's own or the community's best interests.

Generally speaking, people with functional impairments, especially due to mental illness, comprise a category of citizens at risk for marginalisation. Many in this category are active in the labour force, and seek to carry out their tasks satisfactorily and in accordance with expectations, just as most other people do. For others however, access to work in the labour force, with a place of employment to go to, is denied, with the consequence that they are excluded from the opportunity to contribute to self-support and have a role in society. An increasing number of people are at risk of experiencing this outcome due to functional impairments of various kinds, and in particular, impairments in conjunction with mental illness.

In Sweden, in the age group 19-29, persons with more severe disabilities may be entitled to financial support in the form of a temporary benefit specifically for persons in this age group, called activity compensation, which is administered by the Swedish Social Insurance Agency (SSIA). Many who receive this benefit may be so functionally disabled so that they may never be able to go beyond participation in the local community's activity centres. This is far from true of the entire group, however. Activity compensation is designed on the premise that those who are capable of so doing, with the aid of the SSIA and employment agencies, can become a part of the regular labour force or be engaged in some form of subsidized employment. The challenge is to make the transition from full-time receipt of compensation to being a member of the labour force.

The objective of the literature review was to identify and evaluate evidence-based strategies and methods that can be regarded as effective in supporting young people with a diagnosed mental illness or dysfunction in finding meaningful and relevant employment, preferably on the regular labour market.

The literature review was designed to cover various fields of current medical research, and the disciplines of sociology, psychology, economics, social and political science, and health and social care. Assessments of the retrieved documents were largely oriented towards identifying studies with a longitudinal design or published reviews of such studies. Published cross-sectional studies were taken into account when they were seen to contain references to follow-up studies of requisite quality.

This report summarises the results of the literature review. It was carried out by a team of experts at the Department of Occupational and Environmental Medicine, Uppsala University. It covers articles published during the period January 2001 through March 2015.

The report is presented as follows:

- design of the search procedure in the scientific databases;
- extraction of abstracts of published articles and, following study of their abstracts, selection of relevant documents according to their quality and the strength of evidence presented;
- presentation of results, including comments on the selected documents, according to whether they address individual placement and support (IPS) or cognitive behavioural therapy/training (CBT);
- published experiences of IPS implementation;
- discussion of results and experiences; and
- conclusions regarding evidence-based methods for the promotion of employability and capacity to work among people with mental illness, disturbance, or dysfunction.

Published experiences of following the IPS approach in Sweden are presented in a separate annex.

The number of young persons (aged 19–29) in Sweden receiving so-called activity compensation, with either a temporary or a permanent disability that prevents them from working, has steadily increased over the last decade. According to SSIA statistics, the number was approximately 30,000 in 2012. And Sweden is not alone. The Swedish Social Insurance Inspectorate (in Swedish, Inspektionen för socialförsäkring = ISF) has reported an increasing trend in the number of young people being granted equivalent or similar types of compensation in several OECD countries (ISF, 2010).

The ISF report contains observations that place this form of social benefit in a broader context. According to this report, problems of mental health and earlier spells of unemployment increase the likelihood of early retirement from the labour market. A low level of basic education associated with physical or mental impairment and difficulties in completing secondary school appear to be the most important factors leading to the longer term need for activity compensation. In the report there are also geographical patterns, indicating that the prevalence of people receiving activity compensation in Sweden is lower in big-city areas than in more sparsely populated regions.

There is an increasing public concern about the life situation of people with mental and physical impairments on the type of sophisticated labour market that now prevails in post-industrial societies, such as Sweden. This is confounded by structural factors that characterized Europe in general and Sweden specifically. For example, high negotiated levels of pay and accompanying productivity expectations put people whose capacity is not 100 percent at a considerable disadvantage. In principle, they have the same needs as all other citizens, i.e., to have a job from which they may earn their

living and secure their existence. It goes almost without saying that the social advantages from employment and the ability to support oneself economically are of critical importance for life quality in modern societies. Paid work does not only provide an income; it also gives a social role, a personal identity, and a foundation for the development of knowledge, skills and social contacts. Thus, for many people suffering from severe psychiatric diagnoses, their first employment is more than just entry to the labour market; it also offers an opportunity for the healing and personal development that make a secure life possible.

To facilitate the reform of Swedish psychiatric care, initiated in 1995, which aimed to integrate people with mental illnesses into society, the government set aside funds for 1996–1998 to strengthen incentives for local-government institutions to accelerate the pace of implementation. Municipalities and county councils (the lower and upper levels of local-government administration, respectively) were given responsibility, and were also encouraged to provide funding, for the development of rehabilitation techniques and vocational activities. In practice, the municipalities came to bear practically all the responsibility and provided a significant proportion of the financing of all activities (94%) aimed at organising meaningful activities and employment for young people with a mental illness or psychiatric diagnosis. This is still the case today.

The right to work is universally recognised. It is addressed in the United Nations Universal Declaration on Human Rights, which was adopted by the UN General Assembly in December 1948. Article 23 of the Declaration states the fundamental principle that all people have a right to work, and also rights to a free choice of employment, satisfactory working conditions, and protection against unemployment. Further, the UN Convention on Human Rights for People with Functional Disability was adopted on December 13th 2006. This convention was officially ratified by Sweden in 2008, and was introduced into a Swedish Anti-Discrimination Act that has been enforced from January 1st 2009. Article 27 of the Act makes explicit the right of all to carry out work on the same terms that prevail on a labour market that is “open, inclusive and accessible”.

Unfortunately, in practice, these rights are not readily accessible to all. Among the individuals who find themselves outside the arena where the Act is enforced are many with a mental illness, or a mental dysfunction or impairment. This has given rise to debate about the present organisation of benefits, and whether support in securing employment occurs to the extent that it should and to the extent that attempts are made are effective. The aim of this study is to examine the literature to discover evidence methods for effective strategies for consideration for introduction into the Swedish context. Before going directly to the results of the literature the next section reviews the challenges to work and health among the mentally and functionally disable.

Challenges to work and health among the mentally and functionally disabled

A few presumptions are self-evident:

- Good work promotes and is supportive of mental health and well-being.
- It is possible for people with a mental illness to have a good working life.
- Most people with a mental illness and who are unemployed want to be in paid employment.
- The workplace provides a setting where people, even those with a mental illness or impairment, are seen, needed, and have a role to play.

The adjustments required to make work and employment accessible to people who are mentally impaired are of many different kinds. They may concern adaptation of the physical conditions in the workplace. They may also concern actions taken to improve the learning of skills and understanding of work instructions. There are also obstacles and difficulties that constitute challenges for both individuals and employers:

- Mental illness often involves impairments that may be expected to exist over lengthy periods of time, and can be recurrent.
- Impairments associated with mental illness may often interfere with the individual's general capacity, which means that they have an impact on people's ability to carry out not only occupational tasks but also tasks associated with ordinary life, and further to achieve personal goals; they may have consequences from both a short-term and a long-term perspective.
- The course of disease for people with mental diagnoses is highly variable, which makes it difficult to anticipate whether new spells of the same basic mental illness will arise in any individual case; some individuals have only one serious spell during their lifetime, whereas others have repeated spells.
- Mental illness may impact on skills in managing social relations inside and outside work.
- The impairments related to mental illness may not be immediately discernible when personal contact is made; when they are observed, however, they may act as repellents because of the myths, stereotypes and prejudices that surround them.
- Having a job commonly provides a positive incentive, promotes better mental health, and deters relapses.

People in poor mental health may be subject to stigmatisation and discrimination; for this reason, their dysfunction may be an obstacle to entry to the labour market, and may give rise to interruption of schooling, difficulties in finding a place to live, and susceptibility to abuse of alcohol or other drugs that give rise to a state of dependence (Perkins et al., 2009).

A new paradigm – “Place and Train” not “Train and Place”

Several reviews of the scientific literature on employment support for people with a mental illness or dysfunction have been published since the 1980s, when a new paradigm was introduced into psychiatric care, initially in the US and later in many other countries. A new approach emerged as a result. The idea of starting with education and training and then seeking employment (Train and Place) was replaced by finding employment and then providing the necessary training (Place and Train).

The point of departure in the new approach is to prioritise the search for employment among people with a mental illness or dysfunction by setting in job placement as early as possible, rather than by focusing on vocationally oriented training programmes. Attention has been paid to this reorientation in a large number of reviews. Not all of these reviews have been considered in our own systematic review of original published articles, but we do single out three: the Cochrane Review of 2010 (Crowther et al., 2010), the review by Heffernan and Pilkington (2011), and the review by Kinoshita et al. (2013). These are discussed in greater depth here.

The Cochrane Review of 2010

One of the most important and recent systematic literature reviews, entitled “Vocational rehabilitation for people with severe mental illness”, is the product of a Cochrane Collaboration (Crowther et al., 2010). The most important observation in this review is that, in seeking normal employment (competitive employment) on the regular labour market, the approach referred to as “Supported Employment”, which follows the “Place and Train” strategy, was more effective in the diagnostic groups considered in the literature than approaches based on vocational training prior to work placement, so-called “Train and Place”. In five randomised controlled trials (RCTs), with a pooled study population of 484 individuals with psychiatric disease or dysfunction, it was observed that people in supported employment were more likely to find competitive employment than those in a control population. The difference was significant. This finding was verified by six follow-up observations over a period of 18 months.

A recommendation of the Cochrane Review was that “Supported Employment” programmes should be investigated in multi-centric studies, both within and outside the US. And, it was regarded as particularly important to accumulate more evidence for a comprehensive range of diagnoses and from environments where the rate of unemployment is high and which have diverse social-security regimes. It was recommended that such research efforts should aim at achieving in-depth analyses of the cost effectiveness of different models of vocational rehabilitation. For the planning of further research and development, it was also recommended that account should be taken of the specific principles detailed in the Individual Placement and Support (IPS) programme model of vocational rehabilitation, which, according to the review, appeared to be promising.

The Heffernan and Pilkington review of 2011

This is a systematic literature review of earlier and currently ongoing studies in the UK of applications of the IPS intervention strategy for the vocational rehabilitation of persons with serious mental illness (SMI) diagnoses (Heffernan & Pilkington, 2011). Its underlying intention was to examine observed differences between the outcomes of IPS intervention projects performed in the US and those performed in centres in European countries. The review concluded that the IPS approach can be effectively implemented within the UK. Usage of IPS in the European context has, however, only a small evidence base compared with studies conducted in North America, and covers just five studies, selected on the basis of strict quality criteria. The authors recommend further studies to be performed to address how IPS strategies have been implemented in England, Scotland, Wales and Northern Ireland, paying particular attention to which types of employment and work activities have, empirically, been possible to attain. They also recommend further studies of factors that may be identified as obstacles or determinants of success in the selection of work tasks and in framing the functions of professional services aimed at the vocational rehabilitation of SMI patients/service consumers. Further, the authors observed patient characteristics (motivation, employment history), services provided (integration into mental health teams), and economic factors (local employment rates) that might affect employment outcomes

The Kinoshita et al. review of 2013

In this review, entitled “Supported employment for adults with severe mental illness (Kinoshita et al., 2013), which is in the Cochrane Library, the following interventions of interest were defined: Supported Employment (including Individual Placement and Support (IPS) and Augmented Supported Employment), other vocational approaches, and treatment as usual. The authors’ conclusion was that supported employment was effective in improving a number of outcomes relevant to people with severe mental illness. Indeed, supported employment was shown to increase the likelihood of obtaining any employment, and the lengths of both competitive employment and any other form of employment. Further, this type of vocational intervention was indicated to reduce time to first competitive employment and increase job tenure in competitive employment. However, the number of studies contributing to these clinically relevant outcomes was typically two to five out of the total of 14 identified in our literature search. Therefore, the Kinoshita et al. review is inconclusive with regard to whether supported employment is effective for people with severe mental illness.

Employability – the main question addressed in our review

The framing of our main research question came to determine the selection of documents and the collection of information from them. Our quality assessments focused on studies of methods intended to help younger individuals with a functional impairment attain employment. Of particular interest is the notion of “employability”, which is a multifaceted concept,

and also one that has been the subject of debate in both political and scientific contexts. One definition appears in a follow-up report on the European Bologna Process, launched in 1999 to set up a European Higher Education Area:

“The ability to gain initial employment, to maintain employment and to be able to move around within the labour market” (The official Bologna Process website 2007–2010, retrieved 8th September 2014).

Although employability is a complex concept, it is practical and usable in the present context since, by and large, it accords with the aims of the present study. Lennart Nordenfelt, for example, in reviewing the concept of work ability refers to an earlier, but slightly more nuanced, definition offered by the Canadian Labor Force Development Board in 1994:

“Employability is the relative capacity of an individual to achieve meaningful employment given the interaction of personal circumstances and the labour market” (Nordenfelt, 2008).

In this literature review, our point of departure is the employability of people with a mental illness or/and functional impairment.

The target population for the present literature search

The target population for the present literature search encompasses people with mental diagnoses in accordance with the specific diagnoses in Table 1 below. The age group of young adults, 19–30 years of age, was given priority when age was a specific category variable. The search criteria include both people with previous employment, and people with no previous working-life experience. The latter group includes young people who have come directly from compulsory school, often after extra years of schooling.

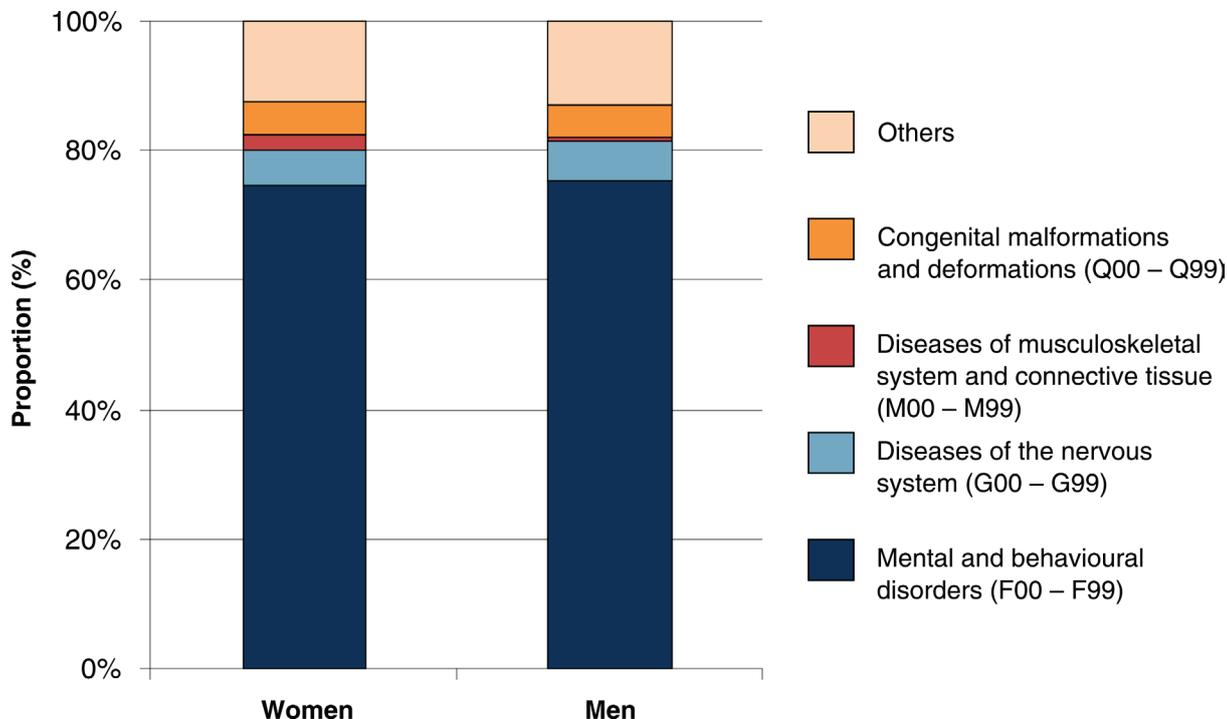
Table 1 lists the diagnoses included explicitly in the search criteria. All the diagnoses entail functional disability, implying a reduction in work capacity or in the capacity to uphold a social role in the workplace, and in relation to close relatives, friends or others in daily life (Bond et al., 2010). In several of the review’s extracted documents, separate accounts are given of schizophrenia and closely related psychiatric states of disease.

Table 1 and Figure 1 (below) show the proportions of persons 19–30 with these diagnoses receiving activity compensation from the Swedish Social Insurance Agency in October 2011. The diagnoses are classified in accordance with the 10th International Statistical Classification of Diseases and Associated Health Problems (ICD-10)

Table 1 The ten most frequent diagnoses of recipients of Swedish activity compensation due to mental illness according to ICD-10 in October 2011 (Swedish Social Insurance Agency, 2012)

Position	WOMEN		MEN	
	Diagnosis	Proportion	Diagnosis	Proportion
1	Mental retardation (F70–F79)	20%	Disorders of psychological development (F80–F89)	25%
2	Disorders of psychological development (F80–F89)	15%	Mental retardation (F70–F79)	20%
3	Neurotic, stress-related and somatoform disorders (F40–F48)	10%	Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90–F98)	10%
4	Disorders of adult personality and behaviour (F60–F69)	8%	Schizophrenia, schizotypal and delusional disorders (F20–F29)	6%
5	Mood (affective) disorders (F30–F39)	8%	Neurotic, stress-related and somatoform disorders (F40–F48)	6%
6	Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F90–F98)	7%	Mood (affective) disorders (F30–F39)	4%
7	Schizophrenia, schizotypal and delusional disorders (F20–F29)	3%	Cerebral palsy and other paralytic syndromes (G80–G83)	3%
8	Cerebral palsy and other paralytic symptoms (G80–G83)	3%	Chromosomal abnormalities, not elsewhere classified (Q90–Q99)	3%
9	Chromosomal abnormalities, not elsewhere classified (Q90–Q99)	2%	Disorders of adult personality and behaviour (F60–F69)	2%
10	Behavioural syndromes associated with physiological disturbances and physical factors (F50–F59)	2%	Episodic and paroxysmal disorders (G40–G47)	1%
11	Other diagnoses	22%	Other diagnoses	20%
	Total number	11,213	Total number	11,988

Figure 1 Distribution by ICD-10 diagnostic category (%) of final decisions taken to grant activity compensation among recipients (aged <30 years) in October 2011. Source: Swedish Social Insurance Agency Report, March 3rd 2012, as commissioned by the government (FK dnr 69161/2011), Försäkringskassan, 2012



As can be seen from Figure 1, the most common grounds for granting activity compensation to both men and women are in the mental retardation (F70–F79) and disorders of psychological development (F80–F89) categories. Here follow descriptions of the categories in Table 1.

Mental retardation (F70–F79)

Mental retardation is a state of a delayed or incomplete development of mental capacity, characterised by a reduction or deficit in mental faculties that reaches full maturation during the developmental period. It concerns the general intelligence level to be achieved, in terms of cognitive functioning, language, motor functioning, and social skills. During development, a disturbance may arise, accompanied or not by other psychiatric or physical dysfunctions. Degrees of mental-development disturbance are commonly assessed by means of standardised intelligence tests. Such tests may be supplemented by scales for the assessment of social adaptation under given contextual circumstances. The tests provide an approximate indicator of the level of a mental-development disturbance. Their implementation may also be accompanied by a comprehensive clinical assessment of the total intellectual level of the individual, which is carried out by a peer diagnostician. Intellectual capacity and social adaptation may change over time, and, regardless of their baseline levels, can be enhanced by training, coaching and rehabilitation. All functional diagnoses are made at time of investigation or testing.

Disorders of psychological development (F80–F89)

This heading includes disorders and dysfunctional states sharing the criteria of:

- a) becoming manifest in early childhood;
- b) involving affected or delayed development of functions closely related to biological maturation processes in the central nervous system; and
- c) being on a continuous course of development with no recurrences or relapses.

Usually, developments of language, visio-spatial skills, and motor coordination are the functions affected. Commonly, the delayed or disturbed function emerges early in the development process, and is detectable even then. Most often, the aberrations diminish as the child grows older, although minor defects may become permanent, and remain in adulthood and old age.

Neurotic, stress-related and somatoform disorders (F40–F48)

F40 Phobic anxiety disorders

This is a category of mental disturbances characterised by symptoms of anxiety, which emerge primarily under some well-defined circumstances and do not present a real hazard. For fear of anxiety, the person seeks to avoid such situations, or tolerates them with anguish.

The person's own anxiety may focus on individual symptoms, such as rapid heartbeat or feeling faint, and are often linked to a secondary fear – of dying, losing control, or becoming mentally ill. The mere thought of the phobic situation can give rise to expectation anxiety. Phobic anxiety and depression often appear at the same time. Whether two diagnoses are made, phobic anxiety and depressive episode, or just one of the two, is determined by the course of events and by therapeutic considerations at the time of medical examination.

F41 Other anxiety disorders

These are mental states, characterised by anxiety as the principal symptom, that are not restricted to specific situations. Depressive or obsessive symptoms, and sometimes also elements of phobic anxiety may be present at the same time, but the diagnoses treat them as secondary or less explicit.

F42 Obsessive-compulsive disorder

This is a mental state characterised by recurrent obsessive thoughts or acts. Obsessive thoughts are ideas, perceptions and impulses that constantly come up to the person's consciousness. Their perception is almost always painful, and the person fails in attempts to resist them. Obsessive acts constitute a stereotypical behaviour in that they involve the repetition of acts that are often disagreeable and senseless. Anxiety is almost always present, and may become worse if the person resists the urge to commit the acts.

F43 Reaction to severe stress, and adjustment disorders

This category differs from the others in that it includes disturbances characterised not only by symptoms, but also by one of a few specific causal factors, such as an exceptionally traumatic life event that prompts an acute stress reaction, or an important change in life situation that makes for a permanent deterioration in conditions of life, leading to maladjustment.

A requirement for inclusion in F43 is that the symptomatic state is a consequence of an acutely emerging serious trauma, or mental strain of long duration. Disturbances in this category can be regarded as maladaptive reactions to serious or continuous strain, since they interfere with purposeful adaptation mechanisms, and give rise to impaired social-functioning capacity.

F44 Dissociative (conversion) disorders

Dissociative states and states of conversion share the feature of involving the partial or complete loss of normal integration between memories of the past, awareness of identity, and control of body-motor functioning.

F45 Somatoform disorders

The characteristic features of somatoform disorders are recurrent somatic symptoms and repeated demands for renewed medical examinations, despite the absence of objective findings and assurances given that there is no somatic explanation for the perceived symptoms.

F 48 Other neurotic disorders

F48.0 Neurasthenia This disturbance shows significant inter-cultural variations. There are two main types of neurasthenia, which to some extent overlap. The dominant symptoms of one of the types are protracted exhaustion and fatigue following mental effort, which is often associated with a reduction in work performance or in the carrying-out of normal daily life tasks. The second type of disorder manifests itself as physical or bodily weakness or exhaustion following minimal exertion. Both the forms often appear in combination with unpleasant immediate conditions, such as vertigo, headache, or feelings of uncertainty.

F48.1 Depersonalisation-derealisation syndrome People with these infrequently occurring syndromes report quality shifts in their mental activities, bodies or surroundings, which have come to be perceived as unreal, distant, or automated. Common complaints include loss of emotion, and perceived alienation or distance from one's own mental processes, body, or immediate surroundings. Such symptoms of depersonalisation are also observed in patients with schizophrenia, depression, phobic states, and obsessive/impulsive states of mind.

Schizophrenia, schizotypal and delusional disorders (F20–F29)

F 20 Schizophrenia

Schizophrenic syndromes are commonly characterised by fundamental disturbances to perception and thinking, and inadequate or shallow affectation. Typical signs of psychopathology include echoes in thoughts, perceived external invasion of thinking, thought distraction, delusions of external control and influence on mental processes, and hallucinations.

F21 Schizotypal disorder

Cases of schizotypal disorder are characterised by eccentric or deviant behaviour and bizarre thoughts or affectations similar to those often seen in people with diagnosed schizophrenia. The symptoms may include inadequacies in thinking and affectations, tendencies to social withdrawal, and paranoid ideas verging on the delusional. Obsessive thinking and acting, and hallucinations often occur with no apparent external triggering cause.

Mood (affective) disorders (F30–F39)

In these syndromes, the basic disturbance is a change in mood, either towards depression (with or without adjoined anxiety) or towards a heightened mood level. Changes in either direction are usually associated with a change in level of activity.

F31 Bipolar affective disorder

This is a state characterised by two or more disease episodes with notable changes in the person's energy and activity. Sometimes, the change consists in a heightening of mood and activity (hypomania or mania). On other occasions, there is a dampening of mood and reduced activity. Recurring episodes of hypomania or mania are commonly classified as bipolar disease.

F32 Depressive episode

In typical episodes of mild (F32.0), moderate (F32.1) or severe (F32.2 and F32.3) depression, a dampened mood is commonly observed, with a reduction in energy and activity levels. The capacities to enjoy life, to be interested and engaged, and to concentrate are all reduced, and are replaced by an extreme perception of fatigue even after minimal effort. Sleep disturbance and loss of appetite are common co-occurring symptoms, as too are reductions in self-perception, self-confidence, and self-reliance.

Outcome variables

The outcomes of interventions sought in this literature review are primarily work-related:

- employment in an ordinary job available on the labour market with normal pay, referred to as competitive employment (CE);
- employment or work with support of some kind, referred to as supported employment (SE);
- paid working time during follow-up of a rehabilitative intervention;
- work practice – usually unpaid – during the follow-up period;
- sheltered employment – work offered to selected categories of people with health or social deficiencies affecting their employability on the open labour market; and
- employment on probation within defined time limits, as practised in all the above-mentioned forms of employment. (In the documents collected for the review, probationary employment has been described as common in the Netherlands, but is likely also to be implemented in other countries. Open employment in mainstream settings with support if necessary often enables people to achieve success).

Perkins, Farmer and Litchfield (2009) have proposed the following definitions of employment in the present connection, which we believe are acceptable for our purposes:

Open employment	Work in an open, competitive setting where both disabled and non-disabled people are employed on the same terms and conditions.
Supported employment	As for open employment, but where the disabled person receives support and/or adjustments to do the job over and above that which non-disabled colleagues receive.
Sheltered employment	Work in a segregated setting designed for disabled people where the person is paid at least the national minimum wage. This might include a range of sheltered workshops and social firms.
Sheltered work	As for sheltered employment, but where people are paid less than the minimum wage (therapeutic earnings). This might include a range of sheltered and training workshops, social enterprises, emerging social firms etc.
Internships: time-limited	A time-limited (maximum three months) period of work in an open, competitive setting where both disabled and non-disabled people are employed but where the person does not receive payment other than out of pocket expenses. These should be distinguished from work trials or working interviews which form part of the job selection process.
Voluntary work	Work in a setting where both disabled and non-disabled people may work without pay that is not time-limited (or lasts longer than three months) and where the person does not receive payment other than out of pocket expenses.

The methodology employed in this review

The study population – summary of main criteria for inclusion and exclusion

Generally speaking, the first criterion for inclusion in this survey was that they were identifiable from the bibliographic databases described above, supplemented by documents emerging from scrutiny of the documents selected for quality assessment and graded by strength of evidence.

Excluded were the following kinds of documents:

- so-called “grey literature”, including project reports, work memoranda, and other documents drafted and published by organisations, public agencies and others that had not been published in the scientific literature;
- documents addressing physical handicaps and physical work ability;
- documents addressing drug treatments;
- documents addressing traumatic brain injuries;
- documents addressing the abuse of alcohol and narcotics; and
- documents based on study populations with an average age of <50 years.

Documents qualifying for inclusion in the study were assessed on the basis of the commonly implemented PICO criteria for the expert review of research documents. That is, a well-formulated question should include four parts, referred to as PICO. They identify the patient problem or population (P), the intervention (I), a comparison (C), with an alternative, and the outcome(s) (O). In the present case:

- a defined study population (PICO –“P”);
- a reference to a population base (PICO –“P”);
- a succinct description of the intervention(s) (PICO –“I”);
- an observation (follow-up) period of >6 months;
- measurements/assessments of work-related outcomes/results (PICO –“O”);
- a description of the control method(s) included in the study design (PICO –“C”);
- generally reported on a randomised controlled trial (RCT); and
- based on a project approved by an ethical review committee or equivalent independent review body.

Randomised controlled trials (RCTs) made up a category (PICO – “C”) to which particular attention was paid. The justification for this lay in the capacity of RCTs to enhance study quality, and to quantify outcome variables in a powerful design suited for intervention studies. This includes the opportunity to make intervention and control groups comparable in most important respects, ideally differing only with regard to the treatment or intervention at hand.

Searching the literature

The so-called PICO conceptual model was applied acronym refers to the model’s operational tools: Population, Intervention, Control/Comparison, and Outcome. The Boolean operators AND, OR and NOT were used to specify how combinations of search concepts were constructed and composite searches made. The AND term was used to combine several concepts pertinent to search objectives, the OR term to safeguard coverage in case of synonyms in the titles of documents, and the NOT term to exclude documents in categories judged à priori not to be relevant to project objectives. See figures 2–5.

As has already been mentioned, the literature searches were performed in order to cover studies within the disciplines of medicine, sociology, the social sciences, psychology, economics, political science, and health-service sciences. Two of the selected six bibliographic databases covered medicine and health – PubMed and PsycINFO; three of them the generally society-oriented sciences – the Social Sciences Citation Index, SciVerse SCOPUS, and the International Bibliography of the Social Sciences; and one the economic sciences – EconLit. The medical- and health-oriented databases have indexing systems that enable searches of high precision, which makes for great sensitivity in the identification of documents with relevant registered characteristics, and also high specificity in rejecting documents with no such registered characteristics.

From early on, we imposed the requirement on all the scientific articles that they be studies with a longitudinal design, that is, that they incorporated a relevant follow-up period from the point of “treatment”.. As well as the searches carried out on the bibliographic databases (as described above), we considered the reference lists of the articles selected for in-depth scrutiny and relevant review reports published. The last search was carried out in April 2015. We also carried out a search of the SveMed+ foundation system to identify documents submitted by Scandinavian authors that were not indexed in any of the large databases. SveMed+ indexes a comprehensive and varied set of articles, ranging from articles in popular-science domains to scientific peer-reviewed articles. However, after studying abstracts, no articles in the relevant fields were retrieved for further examination in this search.

The searches yielded 5,763 scientific documents, the abstracts or summaries of which were then examined (see figures 2 through 6 for the search terms, and the flowchart used for processing of the documents).

Figure 2 Searching the medical bibliographic database PubMed – search concepts and combinations

Search line: PubMed

Languages: English, Danish, Finnish, Norwegian, Swedish

Documents published from January 1st 2001 through to March 31st 2015

"Mental Disorders"[Mesh] OR "Mentally Disabled Persons"[Mesh] OR "Mentally Ill Persons"[Mesh] OR "Down Syndrome"[Mesh] OR "Language Disorders"[Mesh] OR "Tic Disorders"[Mesh] OR "Communication Disorders"[Mesh]

AND

"Work"[Mesh] OR "Work Capacity Evaluation"[Mesh] OR "Employment"[Mesh] OR "Employment, Supported"[Mesh] OR "Rehabilitation, Vocational"[Mesh] OR "Power (psychology)"[Mesh] OR ("Power"[All Fields] AND "Psychology"[All Fields]) OR "Power (psychology)"[All Fields] OR "Empowerment"[All Fields] OR "Return to work"[All Fields] OR "Returns to work"[All Fields] OR "Returned to work"[All Fields] OR "RTW" [All Fields]

AND

"Longitudinal Studies"[Mesh] OR "longitudinal" [All Fields] OR "follow-up"[All Fields] OR "intervention"[All Fields] OR "Randomised Controlled Trial" [Publication Type]

NOT

"Alcohol-Related Disorders"[Mesh] OR "Substance-Related Disorders"[Mesh]

Figure 3 Searching the psychology bibliographic database PsycINFO (Ovid) – search concepts and combinations

Search line: PsycINFO (Ovid)

Languages: English, Danish, Finnish, Norwegian, Swedish

Documents published from January 1st 2001 through to March 31st 2015

"Schizophrenia" OR "Eating Disorders" OR "Mental Retardation" OR "Moderate Mental Retardation" OR "Mild Mental Retardation" OR "Recurrent Depression" OR "Long-term Depression (Neuronal)" OR "Depression (Emotion)" OR "Major Depression" OR "Anxiety" OR "Phobias" OR "Panic Disorder" OR "Anxiety Disorders" OR "Bipolar Disorder" OR "Psychosis" OR "Obsessive Compulsive Disorder" OR "Chronic Stress" OR "Acute Stress Disorder" OR "Stress" OR "Stress Reactions" OR "Adjustment Disorders" OR "Personality Disorders" OR "Pervasive Developmental Disorders" OR "Hyperkinesia" OR "Down's Syndrome" OR "Trisomy" OR "Dyslexia" OR "Language Disorders" OR "Mathematical Ability" OR "Mental disorders" OR "Abnormal psychology" OR "Adaptive behaviour" OR "Attention deficit disorder" OR "Attention deficit disorder with hyperactivity" OR "Behaviour disorders" OR "Borderline states" OR "Conduct disorder" OR "Congenital disorders" OR "Emotional adjustment" OR "Emotional disturbances" OR "Learning disorders" OR "Mental retardation" OR "Personality processes" OR "Thought disturbances"

AND

"Employability" OR "Vocational Rehabilitation" OR "Supported Employment" OR "Employment Status" OR "Reemployment" OR "Employee Assistance Programs" OR "Vocational Evaluation" OR "Empowerment" OR "Return to work" OR "RTW"

AND

"Longitudinal Studies" OR "Follow-up Studies" OR "Longitudinal" OR "Follow up" OR "Intervention"

NOT

"Alcohol Abuse" OR "Drug Abuse"

Figure 4 Searching the community-science and economic-science bibliographic databases: the Social Sciences Citation Index (ISI), SciVerse SCOPUS, EconLit, and the International Bibliography of the Social Sciences (IBSS) – search concepts and combinations

<p>Search line: community- and economic-science bibliographic databases</p> <p>Languages: English, Danish, Finnish, Norwegian, Swedish</p> <p>Documents published from January 1st 2001 through to March 31st 2015</p> <p>“Schizophrenia” OR “Schizotypal disorder” OR “Delusional disorder” OR “Acute and transient psychotic disorder” OR “Schizoaffective” OR “Unspecified nonorganic psychosis” OR “Manic episode” OR “Hypomania” OR “Bipolar affective disorder” OR “Depressive episode” OR “Recurrent depressive disorder” OR “Depression” OR “Mood disorder” OR “Affective disorder” OR “Social phobia” OR “Anxiety disorder” OR “Panic disorder” OR “Obsessive-compulsive disorder” OR “Adjustment disorder” OR “Stress disorder” OR “Somatoform disorder” OR “Conversion disorder” OR “Neurasthenia” OR “Eating disorder” OR “Anorexia” OR “Bulimia” OR “Personality disorder” OR “Personality change” OR “Mental retardation” OR “Aphasia” OR “Reading disorder” OR “Spelling disorder” OR “Disorder* of arithmetical skills” OR “Autism” OR “Asperger” OR “Hyperkinetic disorder” OR “Attention deficit disorder” OR “ADHD” OR “Hyperactivity” OR “Conduct disorder” OR “Tic disorders” OR “Dyslexia” OR “Numeric skills” OR “Down* syndrome” OR “Trisomy” OR “Chromosome aberration” OR “Mental” OR “Psychological health”</p> <p>AND</p> <p>“Employment” OR “Employability” OR “Work capacity” OR “Empowerment” OR “Vocational rehabilitation” OR “Return* to work” OR “RTW”</p> <p>AND</p> <p>“Longitudinal” OR “Follow-up” OR “Intervention”</p> <p>NOT</p> <p>“Alcohol” OR “Drug” OR “Addiction”</p>
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Figure 5 Searching for published documents on interventions using cognitive behavioural treatment or training methods to achieve work-related outcomes

<p>Search line CBT: Pubmed</p> <p>Languages: English, Danish, Finnish, Norwegian, Swedish</p> <p>Documents published from January 1st 2001 through to March 31st 2015</p> <p>"Mental Disorders"[Mesh] OR "Mentally Disabled Persons"[Mesh] OR "Mentally Ill Persons"[Mesh] OR "Down Syndrome"[Mesh] OR "Language Disorders"[Mesh] OR "Tic Disorders"[Mesh] OR "Communication Disorders"[Mesh]</p> <p>AND</p> <p>"Cognitive Therapy"[Mesh]</p> <p>AND</p> <p>"Longitudinal Studies"[Mesh] OR "longitudinal" [All Fields] OR "follow-up"[All Fields] OR "intervention"[All Fields] OR "Randomised Controlled Trial" [Publication Type]</p> <p>NOT</p> <p>"Alcohol-Related Disorders"[Mesh] OR "Substance-Related Disorders"[Mesh]</p>

We also carried out a separate search to identify published documents reporting on the use of cognitive behavioural therapy in interventions to effect work-related outcomes for persons under psychiatric treatment, but not necessarily in conjunction with other forms of support, which gave 2,281 hits. In this category, a sample of 15% of the abstracts was taken for examination by Peter Westerholm (PI). In this selected material, none of the reports met the requirements of relevance defined prior to the search operations. Accordingly, the articles or other documents in this 15% sample were not subjected to further quality assessment.

Criteria for the assessment of abstracts

To obtain a consensus among our team of reviewers, we adopted the principle of requiring all abstracts to satisfy indicators of relevance with regard to:

- a relevant study population with psychiatric illnesses, and disturbances to mental health or mental functioning;
- a succinct description of the intervention(s) undertaken;
- having controls in the study design;
- a longitudinal study design;
- having work-related primary outcome variables (employment, supported work, time at work, income, etc.); and
- a minimum of six months of observation following intervention.

Criteria for the assessment of selected full documents and strength of evidence

Screening was adopted to restrict the number of documents, so as to minimise sources of error and bias. In the screening of abstracts and in the reviewing of articles, the emphasis was on documents that described or referred to RCTs.

The criteria refer to:

- relevance and quality;
- control methods in the study design, including randomisation; and
- degree of evidence for the effect on employment or employability – high, moderate, limited, or insufficient.

The purpose of screening was to identify documents, mainly journal articles, qualifying for more detailed examination. Documents were excluded from further review mainly on the following grounds:

- study population not relevant, e.g., personnel under anti-stress treatment in business undertakings or organisations;
- outcome variables not relevant, e.g., results of medical treatment with no reference to work-related aspects;
- no information presented on the intervention(s), e.g., studies of the natural course of disease in study populations;
- cross-sectional study design, e.g., just one occasion of observation, with no follow-up; and
- absence of an experimental design with a control group, but with a few well-considered exceptions using selected populations for comparisons with group subjected to intervention.

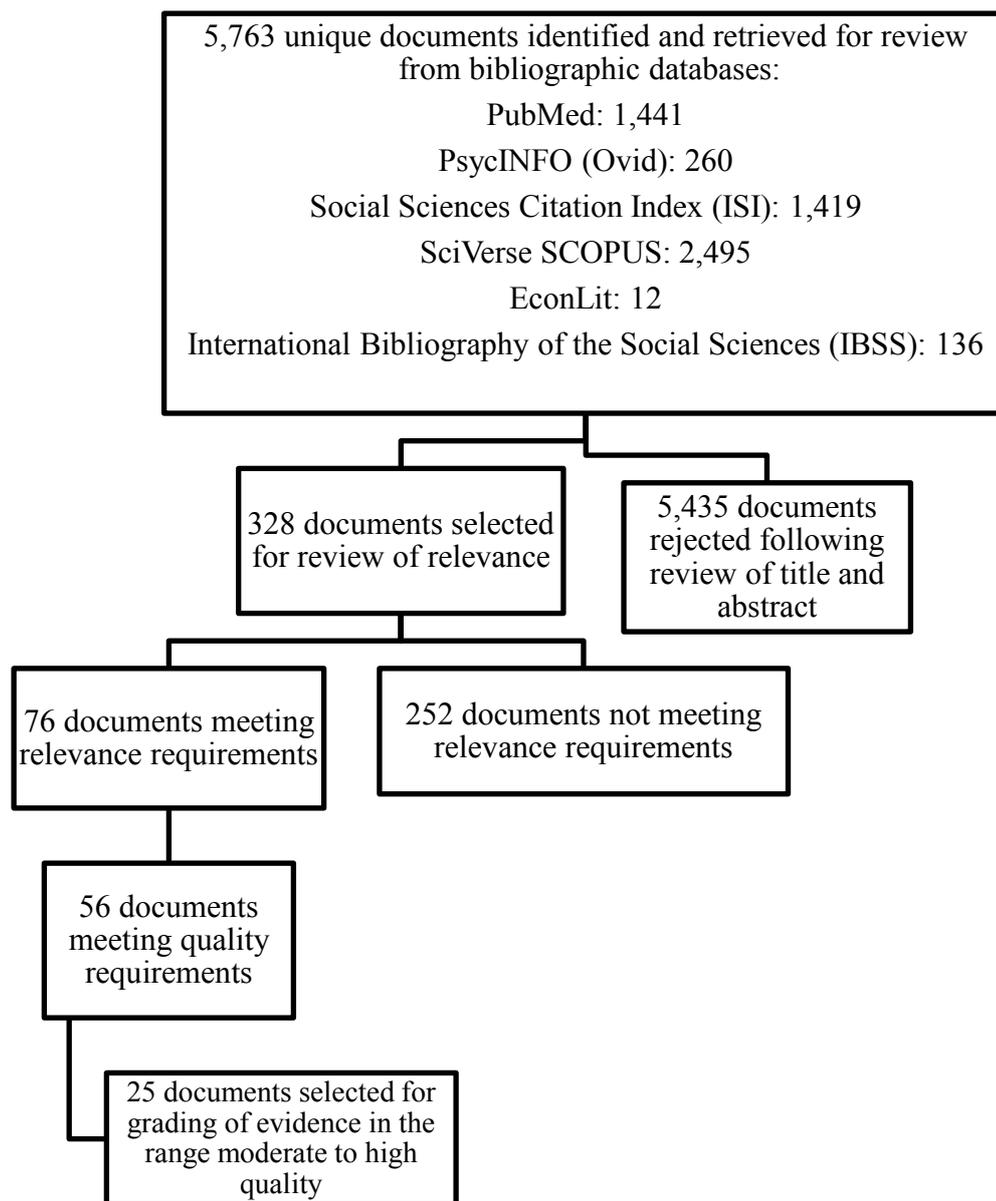
All the documents resulting from the searches were read by two members of the research group. This applies to both abstracts and the documents that went on to be reviewed in full. In case of a difference of opinion between any two researchers, the issue of the future handling of the document was settled by the Principal Investigator (Peter Westerholm).

Examination of selected documents

In the examination of articles/documents selected for in-depth scrutiny, the same principles were applied as for the exclusion of documents at the screening phase.

All documents were examined according to a standard protocol designed by Holm et al. (Holm, 2010) for the systematic review of literature in the return-to-work domain. The protocol can be accessed at <http://hdl.handle.net/2077/23239>. It was used consistently in the quality review of documents selected for close scrutiny and grading of strength of evidence.

Figure 6 Flowchart for the retrieval of documents



By reading the selected documents and their reference lists, a separate search was made for other related studies of requisite quality. This led to the identification of (only) two additional documents/articles, which were added to the database. The publication periods covered by the three rounds of searching were January 2001 through March 2012 (Round 1), April 2012 through July 2015 (Round 2) and January 2013 through March 2015 (Round 3).

Overview of methods appearing in the literature and some associated terminology

Individual Placement and Support (IPS)

The IPS strategy for rehabilitation has attracted significant international attention, and become the basic template for strategies aimed at attaining normal (competitive) employment on the labour market for persons with

some form of mental impairment. The method was developed by Becker and Drake (1994), and in a later step later by Bond (2004).

The IPS conceptualisation of work involves paid employment on the open labour market as the outcome. As well as being a means of existence, work gives meaning to life in more ways than one (Jones, 2002). Perceptions of work have been described by Jahoda (1982) in terms of a feeling of being active, of being capable of contributing something meaningful, of establishing social relationships, of experiencing a feeling of status and identity, and of having a time structure.

Although the concept of IPS was developed and studied originally in the US, it has spread to countries outside the US, such as Canada (Latimer et al., 2006), Australia (Killackey et al., 2008), and Hong Kong (Wong et al., 2008). It has also been picked up in European countries, as reported by van Erp et al. (2007), Burns et al. (2009), Howard et al. (2010) and Bejerholm et al. (2014). The IPS model differs from conventional models of work-oriented rehabilitation programmes in that it embodies the principle that a job is the primary objective prior to any training programme. It is often called the “place-and-train” model. By contrast, the common practice in rehabilitation programmes for people with mental disabilities in most countries has been to introduce training programs prior to placement in active work tasks or in forms of employment (the “train-and-place” model). Thus, the IPS strategy entails a fundamental reversal of the sequence of intervention in programmes aimed at rehabilitating people with mental illness or disability. The logic of this is that employment itself is a component of treatment.

Fundamental features of IPS are that priority is given to measures to secure employment, so as to avoid delay, and also the realisation that training programmes following employment may, for persons with mental impairments or dysfunction, be modified and adapted to fit the tasks for which the person has become employed. Accordingly, such a training programme can be given content and a pedagogic form that makes it individually adaptable and more effective than a programme that schedules training before employment.

IPS is organised according to eight basic principles:

- The goal of an IPS intervention is employment in the labour market, with a focus on normally occurring work tasks.
- Motivation to work and become employed is regarded as a more important determinant of success than the person’s psychiatric diagnosis.
- The goal is to find employment immediately, with the support of the job-coach.
- The wishes and choices of the person regarding the type and place of employment should be carefully respected.
- Individualised support should be provided for both the search for and retention of employment.

- The program is characterized by integrated co-operation between the job-coach(s), the individual's health-care specialist and other professionals who may be a part of the team.
- Personal service should be provided regarding social insurance and other rights.
- The job-coach/program team has access to an established network of employers committed to the program.

The last criterion was added in 2012 (Drake et al. 2012).

In studies carried out in the US, with competitive employment as the prime outcome variable, the practical implementation of the IPS strategy has usually entailed adding supportive measures to ascertain that the placement in employment precedes any programme of vocational training”

A quality instrument, based on the above criteria, has been developed to facilitate the dissemination and use of IPS, to strengthen its uniformity in practical application, and to guide quality surveillance. This tool is known as the Fidelity Scale, which, for the US institutional context, has been described by Bond et al. (1997). In 2008, the instrument was revised and reedited into a manual (Becker et al., 2008).

In the UK, Grove et al. (2009) at the Sainsbury Centre for Mental Health edited a version of the US manual for use in the National Health Service (NHS). Scoring is based on 15 variable components drawn from three domains: personnel, organisation, and service. These components encompass the core elements in IPS. The extent of IPS implementation is assessed for each variable quantitatively, with scores ranging from one to five – where one represents no implementation, and five represents comprehensive and complete implementation. The total score denotes degree of fidelity in relation to full adherence to the basic IPS method and thereby measures degree of compliance of various applications to the basic model.

Integrated Supported Employment (ISE)

ISE is an Individual Placement and Support (IPS) programme that also specifically targets social relationships in the workplace. It supplements IPS with special Work-Related Social Skills Training (WSST). It can be regarded as a “work-related training programme for social relations at work” (Tsang et al., 2010).

Cognitive Behavioural Therapy/Treatment (CBT)

CBT is a generic term for various kinds of cognitive, behaviour-oriented interventions, which may have different objectives, orientations, or contents. In the present context we are interested in its application to support employment of persons with mental impairments. CBT either addresses specified cognitive functions or, optionally, can be organised to provide a therapeutic or coaching programme of comprehensive scope that addresses one or several target functions. The programmes vary in length and intensity, and have the following modes:

Behavioural Intervention (M Bell et al., 2003) – A mode of CBT intervention, which includes regular feedback, and the communication of observations using the Work Behaviour Inventory (WBI) for structuring observations of work habits, work quality, personal presentation, cooperativeness, and social skills. Weekly group-therapy meetings for discussion of WBI observations, and sets of individual goals for work and work performance. Regular feedback with discussions about revising targets between meetings.

Neurocognitive Enhancement Therapy (NET) (M. Bell et al., 2008; M. D. Bell et al., 2005)– A method based on use of the Work Behaviour Inventory (WBI), with a focus on feedback and use of the WBI instrument in relation to work performance and information on social conduct. Focuses on cognitive functions, attention, memory, problem-solving, empathy, verbal communication, and social interaction. These may be supplemented by individual computer-based training sessions. They include the setting of goals and group exercises and integration of the contributions of the rehabilitation team and job specialists (coaches). At later stages, collaboration between cognitive therapists and employment specialists is introduced.

COGPACK software package, version 6.0, Marker software (McGurk et al., 2007) – A CBT intervention model consisting of 24-hour computer-based and guided exercises, covering a broad set of cognitive functions that require attention, concentration, learning, memory, and decision-making, and also shopping. Two weekly sessions over 16 weeks, with supplementary group meetings for discussions of common everyday problem-solving aided by an employment expert.

Computer-Assisted Cognitive Strategy (CAST) (Vauth et al., 2005) – A CBT intervention consisting of a computer-based programme aimed at the training of strategic planning skills, based primarily on the principle of seeking faultless learning to manage typical workplace scenarios. Addendums to the programme aimed at understanding work instructions, and coping strategies for unforeseen events and accidents. These may be combined with *Training for Self-Management Skills for Dealing with Negative Symptoms (TSSN)*, also presented in Vauth et al. (Vauth et al., 2005), a programme with the principal goal of learning how to cope with self-perceived symptoms of an underlying mental illness.

Neurocognitive Enhancement Therapy (NET)

NET encompasses:

- a) regular meetings with the feedback of test results;
- b) cognitive exercises, 5 hours/week over 26 weeks;
- c) weekly meetings in groups to process social information;
- d) oral interactive presentations; and
- e) financial compensation for participating in cognitive training addressing attention, memory, emotional control, and decision-making (Bell et al., 2008).

The Thinking Skills Working Programme

This programme focuses on:

- a) analyses of loss of employment;
- b) planning for return to work under the coaching of an employment expert, who addresses losses of function affecting work performance, and performs analyses of learning experiences;
- c) analyses of deficiencies in cognitive functions (together with an employment expert); and
- d) cognitive interactive computer-based coaching aimed at improving cognitive skills (McGurk et al., 2007).

Training of Self-Management Skills for Negative Symptoms (TSSN)

TSSN is a treatment programme that addresses needs for emotional control, initiative, motivation, and social interaction (Vauth et al., 2005).

The Work Behaviour Inventory (WBI)

The WBI is part of a system for the systematic collection and structuring of data and observations on people undergoing medical treatment or rehabilitation. It aims at the development of work habits, work quality, personal presentation, cooperativeness, social competence, and social skills (M Bell et al., 2003).

Work Therapy (WT)

WT is a specialised programme for war veterans in the US that includes:

- a) financial compensation with bonus supplements;
- b) work placement in the Veterans Administration Medical Centre;
- c) regular meetings to review work performance, problem-solving, and techniques for the setting of objectives;
- d) work coaching for counselling and problem solution; and
- e) referrals to and consultations with other rehabilitation centres (M. D. Bell et al., 2005).

The above abbreviations are also employed to indicate the methods tested in the various studies reported in the present literature survey. In the tables referring to the literature summarizing the results of the present survey *Treatment as Usual (TAU)* refers to conventional types of programmes for occupational rehabilitation, other than structured IPS CBT-based interventions.

The results of the search and summary of findings from twenty-five (25) studies

The results of the survey are presented in Table 2. It is important to bear in mind that the table represents a condensed summary of the findings of the 25 published documents selected for close examination and assessed according to their quality. The table aims to give readers an overall impression of their quality and relevance. Note that rather stricter criteria for admissibility of selected documents were applied for the 2015 report than for the 2012 report. For assessments of quality and in the selection for grading of evidence in the present report, studies designed as randomized controlled trials (RCTs) were required. Readers seeking more detailed information should examine the original documents referred to in Table 2. We begin the discussion of the results with a discussion of the outcome variables and other information necessary or useful to interpret the results.

Comments on the outcome variables

Understanding the use of the term work life is crucial to understanding the focus on the outcomes considered in this review. Basically, work life is a performance-oriented system, which rests on the presumption that people need to perform actions to obtain a product or service that is in demand. Thus, the primary target variables are work-related: employment in normal work with regular work tasks (competitive employment) or employment that is in some sense supported (supported employment), time spent in active work, income from employment, and, in some studies, learning practice.

As well as these work-related variables, other types of outcome variables feature in many of the documents surveyed. In a few of the studies selected for the grading of evidence, internships, registration on recognized vocational training courses, and other pre-vocational activities reflecting the intention of community integration were recorded. Outcome variables such as well-being, life quality, and self-perceived health are often examined. In the present report we have, however, treated these as secondary outcomes, which are not further discussed. As intermediate or transient states, they may, however, be closely associated with work-related objectives. Successful treatment of a psychiatric disorder is likely to have positive effects on social behaviour, and influence people's capacity to work. However, work capacity is a secondary health objective which was not per se given priority in our searches of the bibliographic databases. The results of interventions aimed at attaining these objectives are not presented in the tables in the current report.

Quality assessment

The scientific quality of the reviewed documents was assessed in terms of their capacity to contribute to evaluation of the effectiveness of the interventions they addressed, in particular with regard to work-related outcomes. The review concerned how the study populations were selected, study designs including control techniques, and descriptions of the interventions, measurements of outcome variables, the analyses performed, and the conclusions drawn. Quality was classified as high, moderate, limited, or insufficient. Tables 2 and 3 following only include studies assessed to be of high or moderate quality.

Evidence assessment – GRADE

The strength of evidence with regard to methods of intervention was assessed by taking into account the quality of the reviewed documents in terms of effectiveness. Based on the assessments, a global evaluation of strength of evidence was made concerning the validity of the conclusions drawn. The GRADE procedure, developed by the Swedish Council on Health Technology Assessment (SBU, 2012), was carried out only with regard to the documents selected for in-depth scrutiny (n=25).

GRADE consists of the levels of strength:

Strong scientific evidence. Studies of good quality providing comprehensive and credible support for the effectiveness of an intervention.

Moderately strong scientific evidence. Studies of good quality providing, in a comprehensive assessment, moderately strong and credible support for the effectiveness of an intervention.

Limited scientific evidence. Studies of good quality providing, in a comprehensive assessment, limited support for the effectiveness of an intervention.

Insufficient scientific evidence. Studies of low quality not allowing firm scientific conclusions to be drawn.

Summary of the findings of twenty-five studies

The 25 documents selected for grading of evidence are commented upon in Table 2 (on the following pages).

Table 2 Summary of the findings of the 25 published documents selected for close examination and assessed according to their quality

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
<p>Bejerholm et al., 2014 Sweden</p>	<p>Patients with SMI recruited from six mental health teams in southern Sweden. Psychosis or psychiatric diagnosis with significant impact on everyday life during > 2 yrs.</p> <p>Eligible to study n = 141; Excluded n = 21 Age (M) 38-39 yrs Admitted to study n = 120</p>	<p>RCT study</p> <p>Intervention group IPS, n =120</p> <p>Control group: Traditional Vocational Rehabilitation (TVR), n = 60)</p> <p>Regular monthly follow-up meetings and monitoring throughout study period of 18 months</p> <p>Scoring of IPS participants' fidelity to the study.</p> <p>Observation and follow-up 18 months after baseline</p>	<p>Competitive employment rate</p> <p>Numbers of hours and weeks worked, job tenure, income, and time to first employment</p> <p>Attrition rate in study population: 28%</p> <p>Results: IPS more effective than TVR for competitive employment, 46% vs. 11%</p> <p>IPS group: 90% involved in work, internship and education, vs. 24% in the TVR group</p> <p>IPS group faster job-finding, longer job tenure, and higher income compared with the TVR group. IPS group observed to show higher grade of activity in the community (90%) compared with the TVR group (24%)</p>	<p>High to moderate quality</p> <p>Attrition rate: 28% – roughly equal in IPS and TVR groups</p> <p>Comment: three subjects in the IPS group left study prior to being followed up in anticipation of social insurance benefits being withdrawn</p>
<p>Bell et al., 2005 US</p>	<p>Patients treated on the Veterans' Administration Hospital Health Program for SMI and schizophrenia</p> <p>n = 145</p> <p>Age (M) 42.5 yrs (WT + NET); 43.5 yrs (WT only)</p>	<p>RCT study</p> <p>Intervention – Work Therapy (WT), which implies offer of salaried job tasks with additional bonus dependent on performance.</p> <p>Intervention at 6 months, with follow-up 6 months after end of intervention</p>	<p>Time in competitive employment, time at work and accumulated salary</p> <p>Results: Group WT + NET significantly higher rates of employment, time at work, and salary at follow-up as compared with group WT only</p>	<p>Moderate to high quality</p> <p>Comment: both the WT group and WT + NET groups received support from an employment specialist during the intervention</p>



Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
Bell et al., 2008 US	<p>Patients treated in a municipal centre for mental health for SMI/ schizophrenia (psycho-affective disorder) in ambulatory care (DSM-IIIIR).</p> <p>N=72 (both groups) Average age: 42 yrs</p> <p>Vocationally oriented rehabilitation following IPS model aiming at transitional or supported work</p> <p>CBT in form of Neurocognitive Enhancement Therapy (NET) included</p> <p>Pre-randomisation selection process not presented in detail.</p>	<p>RCT study.</p> <p>VOC + NET n = 38</p> <p>VOC only n = 34</p> <p>Intervention during 12 months.</p> <p>Follow-up 12 months after concluded intervention</p>	<p>Full- or part-time competitive employment or employment offered during follow-up</p> <p>Total time in employment</p> <p>Results: Total time at work and performance in competitive employment 60% in group VOC + NET, and 37% in group VOC only</p>	<p>High to moderate quality.</p> <p>Suggested synergy VOC and NET</p>
Bell et al., 2014 US	<p>Study population unemployed subjects with diagnosis of schizophrenia or schizoaffective disorder recruited at urban community mental health centre between 2001 and 2010</p> <p>N = 175; Age (M) 40 yrs</p>	<p>RCT design.</p> <p>Interventions:</p> <p>1) Supported employment group (n = 75); IPS programme provided by community centre with vocational scheme including funding for limited transitional employment</p> <p>2) Supported employment (as for Group 1) plus a cognitive remediation (n = 99) programme, including coaching and exercises focusing on specific functions.</p> <p>Variable community functioning among subjects assessed and followed up</p> <p>Active intervention time: one year.</p> <p>Follow-up: two yrs after baseline.</p>	<p>Outcomes: accumulated competitive employment rates during observation period of two yrs; total hours worked.</p> <p>Employment rates over two yrs significantly improved in subjects with lower community functioning</p> <p>Supported employment + CBT (49% vs. 20%).</p> <p>Subjects with higher community functioning had comparable employment rates (62% vs. 54%, ns)</p> <p>Conclusion: Augmented SE with CBT may boost vocational outcomes for subjects with low community functioning</p>	<p>High to moderate quality</p>

Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
Bond et al., 2007 US	Patients treated at the Thresholds Institution (a psychiatric rehabilitation institution), Chicago for SMI (DSM- IV) – schizophrenia, obsessive behaviour, other severe mental illness n = 187 Mean ages: 39.7 (IPS group), and 38.0 (DPA group)	RCT study Intervention IPS group with control group subject to a diversified placement approach (DPA), with an emphasis on work readiness, offering a range of vocational options Follow-up 24 months after end of intervention	Competitive (normal) employment, any employment (competitive or non-competitive) Results: Competitive employment rates over the two-year follow-up: 75.0% for IPS, and 33.7% for DPA. However, IPS and DPA did not differ on the all-paid-employment outcome	High to moderate quality. Comparison made between two, in several regards, similar models for active intervention towards rehabilitation
Bond et al., 2014 US	Persons diagnosed with SMI in four studies following the same study protocol. Combined study population: n= 681. Persons sampled for present study: unemployed aged < 30 yrs. n = 109 Sample mean age: 26 yrs	RCT study IPS intervention group n = 49 Fidelity monitoring Control group subject to alternative vocational rehabilitation (TVR) Observation period: 18 months	Competitive employment, job acquisition, total weeks worked, job tenure in longest-held job, total hours worked, total earnings, days from admission to programme to first competitive job. Competitive employment achieved by 82% of IPS group vs. 42% of control group. IPS group average 25.0 weeks in employment vs. 7.0 weeks for control group Total no. of weeks at work: IPS group 24.6 vs. control group 12.7 Total earnings: IPS group USD 7,755 vs. control group 4,844	High to moderate quality Educational attainment outcomes not examined.
Burns et al., 2008 UK	Patients at institutions for psychiatric rehabilitation in London (UK), Ulm (Germany), Rimini (Italy), Zürich (Switzerland), Groningen (The Netherlands), and Sofia (Bulgaria) Joint study with participation of six European countries n = 312, drawn from an interviewed population of 728 Ages: 37-38	RCT study Intervention: IPS model in a multi-centric study Reference therapy not specified, beyond Vocational Rehabilitation (VR) as practiced in participating institutions. Follow-up: 12 months, with interviews at 6, 12 and 18 months	Competitive employment (CE) and supported employment (SE), time at work. Results: IPS enhances effectivity of rehabilitation. Time in CE (minimum one day): 54% in the IPS group, and 27% in the control group IPS group time at work quadrupled compared with the VR group during time observed	High to moderate quality. Selection process for drawing study population from selection frame (n = 728)



Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
Cook et al., 2008 US	Subjects suffering from SMI – DSM IV (schizophrenia/schizoaffective disorder, bipolar disorder, severe depression), recruited from eight mental health service centres Admission requirements; unemployed >1 yr., willingness-to-work n = 1,273 Age (M) 38 yrs; schizophrenic disorder 30 yrs	RCT study Intervention IPS model (Bond, Becker & Drake, 2001) Implementation of quality criteria for fidelity to intervention Control group receiving a vocational rehabilitation programme (treatment as usual, TAU), excluding mental health centres aimed at establishing supportive social network structures. Follow-up: two yrs	Competitive (normal) employment (CE) and all employment Results: At end of follow-up 25% of IPS group in CE, vs. 12–14% of TAU group.	Moderate to high quality Observed differences with regard to implementation of supported employment (SE) at participating centres.
Drake et al., 2013 US	Study population - US Social Security Disability Insurance beneficiaries receiving Medicare income support, having previously been employed but unable to work due to impairment 23 study sites across the US Study population of SSDI beneficiaries on grounds of SMI, with psychosis or mood disorders: n = 2,238, of n= 15,982 Study population age: 47.2–47.5 yrs	RCT study Computer-based randomization intervention, following IPS model, n = 1,121 For IPS group monitoring of fidelity. Control group – usual care including services covered by Medicare, n = 1,117 Follow-up: 25 months	Monthly rates of paid employment in IPS group starting in week 5 increased to 22.3% from month 7. as compared with the control group, which stayed at 15.6%. Employment at any time at follow-up: 60.3% for the intervention group, compared with 40.2% for the control group IPS group generally showed greater workforce participation, higher earnings, and better self-reported mental health and life quality	High to moderate quality
Hoffmann et al., 2011 Switzerland	Study population drawn from persons suffering from SMI, who had notified a need for psychiatric vocational rehabilitation as stipulated in Swiss social-security legislation n = 100	RCT study Intervention: IPS model aiming at supported employment (SE), with involvement of job coaches. Control: traditional vocational rehabilitation programmes assessed to be implemented with high quality (TVR) Two yrs of follow-up and observation time	Competitive employment (CE) and supported employment (SE), , time to first employment. total time in employment. Income during time under observation Results: In IPS group 48% in CE, as compared with 18.5% in the TVR group. During second year, IPS group 24.5 weeks at work, compared with 10.2 weeks in the TVR group	High to moderate quality.



Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
Howard et al., 2010 UK	Study population of persons with SMI (schizophrenia, schizoaffective disorder, other psychosis) referred to two Community Mental Health Teams in boroughs of London Referrals n = 375; Admitted n = 108 Ages: 18– 65 yrs	RCT study Intervention IPS model with a control group of subjects undergoing vocational rehabilitation programme following common practice (Treatment as Usual or TAU) 12 months of follow-up and observation time	Competitive (normal) employment (CE) Jobs held, earnings, number of hours at work/week, training courses. Results: No statistically significant differences between IPS group and TAU group with regard to outcomes observed	High to moderate quality
Killackey et al., 2008 Australia	Subjects receiving treatment for first episode of psychosis (DSM IV) at centre for early prevention and intervention of psychosis. N = 41 Average age: 21 yrs M/F ratio 33/8	RCT study Intervention – IPS, with control group of subjects undergoing vocational rehabilitation programme, Treatment as Usual (TAU), according to normal practice Observation time: 6 months	Number of employments and jobs held, earnings, hours worked per week Participation in training courses aiming at employment Results: IPS group high number of employments as compared with the TAU group, 21 vs. 4 Hours at work: IPS group 33.9 vs. TAU group 22.5 Earnings from work: IPS group 4,449 Australian dollars vs. TAU group 3,615	High to moderate quality
Latimer et al., 2002 Canada	Subjects in ambulatory psychiatric care for SMI at departments of university hospitals of Montreal after having notified interest in being registered in the study SMI means schizophrenia, schizo-affective disorder, bipolar disorder, severe depression and other psychosis Study population n = 150 Age (M): 40 yrs	RCT study Intervention: IPS model Control group; Treatment As Usual (TAU)	Normal (competitive) employment compensated for at minimum pay, self-employment, time at work, earnings. Results: Over the 12 months of follow-up, 47% of clients in the supported employment group obtained competitive employment, vs. 18% of the control group. IPS group averaged 126 hours of competitive work, vs. 72 in the control group.	High to moderate quality



Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
Lehman et al., 2002 US	Study population: subjects with SMI within schizophrenia spectrum DSM-IV drawn from inner-city ambulatory psychiatric care centres n = 219 Age (M): 41 yrs	RCT study IPS intervention model, with psychosocial rehabilitation programme for control group. Control group subject to intervention in several aspects similar to IPS group, but having no employment and development coaching in the intervention. Follow-up time under observation: 24 months	Normal (competitive) employment, time worked, earnings Results: IPS group CE 22% vs. control group 11% Remained in study until two-year follow-up: IPS group 75%; control group 60% Differences between IPS and control groups also with regard to time worked and income Both IPS and control groups faced similar challenges with regard to employment retention	High to moderate quality
Lindenmeyer et al., 2008 US	Patients receiving mental health care at the Manhattan Psychiatric Center, with SMI (DSM IV), diagnoses of schizophrenia, schizoaffective disorder, bipolar disease, other psychosis, severe depression or neurosis n = 85 Age (M): 45 yrs.	Intervention group: Cognitive Remediation Therapy (CT). Control group: Treatment as Usual (TAU), i.e., vocational rehabilitation with no cognitive intervention or training. The entire study population offered work at the psychiatric hospital hosting the programme.	The CT group showed clear improvement on work-related outcomes (twice or more with regard to time in active work, weeks or days at work, earnings) compared with the control group	Moderate to high quality
McGurk et al., 2007 US	Subjects under psychiatric care for SMI at the Mount Sinai School of Medicine Psychiatric Center, NY. Recruitment Base: two municipal rehabilitation centres in Manhattan, NY. Schizophrenia, schizo-affective disorder, mood disorder, psychosis All members of the study population were in supported employment (SE) N = 44	Weekly Intervention; CBT programme entitled "Thinking Skills Working Program" addressing 1) analysis of job loss; 2) planning guided by job coach /employment expert; 3) analysis of cognitive dysfunctions; 4)cognitive interactive computer based training sessions. Follow-up time under observation: 2–3 yrs	Normal (competitive) employment(CE), time at work, salaried income gained Intervention Group SE + CBT: achieved CE 70% vs. Control group (No CBT) 14% Income gained: intervention group USD 5320, vs. USD 530 in control group	High to moderate quality Study population all in supported employment



Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
McGurk et al., 2009 US	Subjects suffering from schizophrenia commissioned at municipal mental health centres by means of offering programmes of vocational rehabilitation n = 34 Age (M): 45 yrs	RCT study. Intervention: Cognitive Behavioural Training (CBT) with twice weekly group seminars addressing cognitive functioning in subjects work, memory functions, and working tempo. Control group subjected to vocational rehabilitation programme with no CBT. Follow-up time under observation: two yrs	Normal (competitive) employment (CE), income earned Results: Consumers who received both cognitive remediation and vocational rehabilitation demonstrated significantly greater improvements on a cognitive battery over 3 months than those who received vocational rehabilitation alone and had better work outcomes over the 2-year follow-up period.	Moderate to high quality Small study population.
Michon et al., 2014 The Netherlands	Study participants with SMI recruited at four regional community health centres on the criteria: 1) explicit wish for competitive employment; 2) age range 18– 65; 3) unemployed; 4) informed consent, Assessed for eligibility: n = 198 Admitted to study: n = 151	RCT study Two independent assessments of eligibility before randomization. Intervention group: n = 71. IPS implemented following protocol (Drake, Bond & Becker 2012), including monitoring of IPS fidelity. Control group: Services offering active traditional vocational rehabilitation on a stepwise vocational trajectory, n = 80 Follow-up at 6, 18 and 30 months	Main study outcome variable: proportion of persons competitively employed during follow-up. Assessment of cost-effectiveness of IPS intervention compared with the TVR programme. Results: in IPS group 44% of participants found competitive work, in comparison with 25% in the TVR group. IPS group more hours of work in competitive jobs than TVR group. IPS subsample competitively employed fewer days to first job, compared with the TVR control subjects. Loss to follow up: IPS group n = 30; TVR group n = 33	Moderate to high quality



Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
Mueser et al., 2004 US	<p>Patients at Hartford Mental Health Center, Connecticut with SMI (Schizophrenia, schizoaffective disorder, bipolar disorder, severe depression. Recruitment to study population via weekly information meetings on voluntary basis and informed consent procedure.</p> <p>n = 204</p> <p>Age (M): 41.1 yrs</p>	<p>RCT study</p> <p>Intervention group undergoing IPS programme with annual surveillance of fidelity scoring</p> <p>Control group receiving psychosocial rehabilitation (PSR), including integrated transitional employment</p> <p>A second control group receiving traditional vocational rehabilitation (VR) programme, referred to as Standard Services.</p> <p>Follow-up time under observation: two yrs.</p>	<p>Outcome variables: normal (competitive) employment (CE), time to first employment observed during intervention.</p> <p>Time in CE during follow-up period</p> <p>Time at work monitored weekly during two yrs of observation</p> <p>Aim of intervention: competitive employment (CE).</p> <p>IPS group best results for CE = 74% at follow-up, compared with PSR group 18%, and VR group 28%.</p> <p>More accumulated time at work in the IPS group</p>	High to moderate quality
Mueser et al., 2014 US	<p>Study population consisting of persons suffering from SMI (DSM IV 7R Axis)</p> <p>Three programmes compared: supported employment, standard vocational rehabilitation services, and a psychosocial clubhouse programme</p> <p>Study subjects recruited at the Capitol Region Mental Health Center, Hartford, Connecticut</p> <p>Study aim: to assess the effects of vocational rehabilitation programs among US Latino consumers</p> <p>n = 204</p>	<p>RCT study</p> <p>Study population randomised to groups receiving supported employment (IPS), a psychosocial clubhouse program, and standard vocational services</p> <p>IPS intervention implemented following standard procedure. Clubhouse program focusing on transitional employment. Standard rehabilitation program based on individual service coordinator assistance</p> <p>Separate analyses of ethnic groups: All Latinos, Non-Latino African-Americans and Non-Latino Whites</p> <p>Attrition in study groups and vocational outcomes over 24 months of follow-up</p>	<p>Results: Study population subject to attrition differing between study groups over two yrs of observation. IPS group follow-up rates 87– 95% in all ethnic groups, followed by PS Clubhouse group (50– 67%), and standard services with significant loss to follow-up (9–17%)</p> <p>IPS intervention program leading to more effective employment outcomes over two yrs of observation in comparison with the Psychosocial Clubhouse program and standard rehabilitation services This applies to both Latino and non-Latino subjects</p> <p>In the Latino IPS group the competitive employment rate at 2 yrs after baseline was 35-40%, vs. less than 10% in the standard services group</p>	High to moderate quality Comparisons hampered by high attrition rates in comparison groups (esp. standard services)



Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
Oshima et al., 2014 Japan	<p>Study population commissioned at a suburban community support centre near Tokyo on the criteria 1) schizophrenia diagnosis, mood disorder, or neurotic disorder (ICD-10), 2) > 5 contacts with community support centre in the last year. 3) high psychiatric service utilization in last 2 yrs. 4) low level of social functioning in previous yr. 5) Not currently competitively employed</p> <p>Subjects assessed for eligibility n = 566</p> <p>Subjects excluded (not meeting inclusion criteria or declining to participate): n = 532</p> <p>Randomised: n = 37</p> <p>Age (M): 40.6 yrs</p>	<p>RCT study</p> <p>Intervention program: IPS supported employment following standard model (Drake & Becker 2003), with fidelity assessment to confirm IPS implementation</p> <p>n = 18</p> <p>Control group: subjects assigned to a vocational rehabilitation program at the community support centre, including pre-vocational training in various work groups in simulated environments intended to prepare participants for paid employment</p> <p>n = 19</p> <p>Follow-up 6 months from baseline</p>	<p>Aim of study: competitive employment implying a job paying at least a minimum wage (as established by Japanese law)</p> <p>Results: Members of IPS group achieved competitive work in 44% of cases, vs. 10% for members of control group</p> <p>Earnings were also higher in the IPS group, as compared with the control group, although not statistically significant</p>	<p>Moderate to high quality</p> <p>Reservations: small study population, and short period of observation (6 months).</p>
Tsang et al., 2009 Hong Kong	<p>Subjects suffering from SMI (schizophrenia) recruited via Hong Kong organization for mental health</p> <p>N = 189 Age: 35–36 yrs</p>	<p>RCT study.</p> <p>Intervention group IPS model n = 65</p> <p>Control group receiving Work Social Skills Training (WSST) n = 58</p> <p>Control group receiving Standard Care (TVR)</p> <p>n = 66</p> <p>Follow-up time under observation: 15–24 months</p>	<p>Outcome variables observed : employment and time in employment</p> <p>Employment rate in WSST group after 39 months 82%; in IPS group 65%, and in TVR group 6%</p>	<p>High to moderate quality</p> <p>Small numbers in three groups of study population.</p>



Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
Waghorn et al., 2014 Australia	<p>Study population of subjects with severe persistent mental illness, referred from four public mental health centres</p> <p>Criteria: 1) expressed interest in competitive employment; 2) being currently available for work > 8 hrs/week; 3) unemployed; 4) D: psychotic disorder; age 18–59 yrs; 5) assessed for being safe to participate</p> <p>Subjects assessed for eligibility n = 432</p> <p>Not meeting inclusion criteria n = 211</p> <p>Admitted and randomized n = 208</p> <p>Age (mean) 32.0–32.8 yrs</p>	<p>RCT study</p> <p>Intervention condition: IPS supported employment following standard model (Drake & Becker, 2008), including fidelity assessment to confirm IPS implementation</p> <p>n = 106</p> <p>Control condition: programme of enhanced routine mental health case management, providing guidance and initial training to mental health managers at all four study sites</p> <p>n = 102</p> <p>Follow-up 12 months from baseline.</p>	<p>Primary employment outcome: one of more days of competitive employment in previous 6 and 12 months, respectively</p> <p>Co-primary outcome: any vocational benefit, such as commencement of formal education or training leading to qualification</p> <p>Secondary outcomes: job duration, hours worked/week, earnings</p> <p>Results: IPS significantly greater odds of commencing employment (42.5%), vs 23.5% in control condition</p>	<p>High to moderate quality</p> <p>Attrition in combined IPS and control groups over 12 months: 28%</p>



Table 2 continued..

Author, year of publication, country where the study was performed	Description of the study population and circumstances around it, the method of selection, and other information relevant to the experiment	Study design	Outcome variables and results	Evidence grading and comments
Wehman et al., 2014 US	<p>SEARCH project</p> <p>Study population: youth with autism spectrum disorders (ASD), recruited from students on two public special-attention programs applying for admission to the project during the final year of high school</p> <p>Inclusion criteria: 1) age > 18 yrs.; 2) ASD diagnosis or autism educational eligibility; 3) independent/self-caring; 4) capable of consent; 5) eligibility for special education services at high school.</p> <p>n = 40</p> <p>Age (M) 19 yrs</p>	<p>RCT study</p> <p>Primary hypothesis of study: youths subject to an employer-based training and placement regimen are more likely to be employed than those in a control condition</p> <p>Intervention group: SEARCH project, 9 months on an intensive internship program in a large community business (e.g., hospital, government agency, banking centre). Programme regimen includes 900 hrs of classroom time, and training in job tasks through the strengthened ASD-focused resources of special education teachers, employment specialists and assistant staff, n = 24</p> <p>Control group: Students receiving regular educational supports following Individualized Education Programmes (IEP) interacting with research staff, only at data collections, n = 16</p> <p>Follow-up time : 12 months (intervention time + 3 months)</p>	<p>Primary outcome variable: competitive employment</p> <p>Results: 21 out of 24 participants (88%) in the treatment group gained employment, while only 1 out of 16 (6%) of control-group participants gained employment.</p>	<p>High quality</p> <p>Comments:</p> <ol style="list-style-type: none"> 1. Intervention group subject to structured, intensive and multifaceted classroom teaching and coaching in work tasks during internship. No control group contacts by research team beyond data collection on outcomes 2. Four subjects assigned to control group in the randomisation withdrew from study prior to its initiation 3. Small study population
Wong et al., 2008 Hong Kong	<p>Patients with SMI recruited at Kwai Chung Hospital Authority's departments of occupational therapy during yrs 2001–2003</p> <p>N = 93</p> <p>Ages: 20–32 yrs</p>	<p>RCT study. Intervention following IPS model, with supported employment IP-group, n = 46</p> <p>Control group offered conventional vocational training programme (TVR). Follow-up time under observation: 18 months, n = 46</p>	<p>Competitive (normal) employment (CE)</p> <p>Results: By end of observation period 43% of IPS group in CE, vs. 22% of control group (TVR)</p>	<p>High quality</p>

Successful strategies identified by the survey – IPS and CBT

Two key intervention strategies were identified through the searches: Individual Placement and Support (IPS) and Cognitive Behavioural Therapy/Training (CBT), with the upper-case ‘T’ referring to either treatment or training. Twenty-five studies were assessed to be of moderate to high quality, all of which were based on randomised controlled trials (RCTs). The breakdown by type of intervention is shown in Table 3.

Table 3 **Numbers of moderate to high quality studies by type of intervention**

Type of intervention	Number of studies (n)
Individual Placement and Support (IPS)	16
IPS + Cognitive Behavioural Therapy/Training (CBT)	1
CBT only	7
Multimodal employment support for people with autism spectrum disorders (SEARCH)	1
Total	25

The strategies aim to give people with a mental impairment or functional disability the support they need to be active, and to be capable of assuming responsibility in relation to work tasks and in interactions with work management, work colleagues, and clients/customers. In addition they are based on strategies capable of dealing with obstacles to becoming employed and taking on active job tasks. The obstacles are:

- poor motivation to work and poor self-confidence;
- apprehensions that carrying out work tasks may damage or worsen health;
- resistance in companies and organisations to the employment of people with mental ill-health;
- prejudicial and discriminatory attitudes on the labour market;
- absence of support for obtaining and retaining a job on the part of social agencies and health-service organisations; and
- apprehensions that involvement in rehabilitation programmes may preclude the obtaining of financial support from the social-insurance or sickness-benefit systems.

The 25 studies that have obtained the highest ranks have, generally speaking, succeeded in dealing with these obstacles.

The two most successful interventions – IPS and CBT

Comments on IPS

In most of the IPS studies, there are observed effects of intervention on the primary outcome variables – competitive or supported employment, work-activity level, time at work, and income from employment – at follow-up. Moderate to significant increases in the number of individuals who had acquired employment were observed, as too were moderate increases in the level of income from employment.

In studies of IPS implementation carried out in the US, effects have been observed on competitive employment (CE) in the regular labour market, supported employment (SE), time spent on work performance, and income from employment. In magnitude, the effects have been 30–150% higher than those in control populations, which indicates considerable success. In studies performed in countries outside the US, however, the observed effects have more often been only moderate, and sometimes not even detectable. The report by (Burns & Catty, 2008) is based on a study carried out in six European countries: Bulgaria, Germany, Italy, the Netherlands, Switzerland, and the UK. The outcomes are small to modest in this study, for a test group of 312 persons 37-38 years old and spread out among the participating countries.

Some specific issues, emerging from scrutiny of the documents, are worth taking into account:

- In several of the RCT studies, the randomisation of the study population was preceded by a pre-examination based on a request for admittance to the programme. This was the first step in the selection procedure, which sometimes involved several contacts between potential participants and researchers. The people eventually selected for study were then randomised into one or several index (intervention) groups and a control group.
- Such a selection procedure can be assumed to have been intentionally designed to select people who have a strong motivation to enter treatment regimens or rehabilitation programmes following the IPS model. Usually, this is not commented upon in detail in the articles. It is, however, reasonable to regard work motivation as a fundamental driving force, and also a determining factor, in the selection of IPS study populations, and is a variable that has the potential to confound the associations between an intervention and its work-related outcomes.

- It is important to bear in mind that IPS is a structured programme package, in its orthodox form consisting of seven to eight elements or programme components (see above). At individual level, these are work motivation, seeking employment, selection, coaching, vocational training, information on legally regulated rights and social benefits, and financial support. At the labour-market level, there is the identification of companies/organisations and work tasks, and the establishment of pools of well-willing employers, near where the target subjects live.. At process level in vocational rehabilitation, there are the integrated actions of actors, the commissioning of work coaches, the integrated actions of medical, social and employment experts, and the contributions of work agencies, and of social-insurance and municipal services.

It was not possible in this systematic literature review to identify and assess the effectiveness and contributions of specific programme components to the overall effects of programmes. In principle, the effects, where they can be observed, may be attributable to early work placement, with precisely targeted vocational training and coaching, instructions, supportive surveillance, and organised interactions between skilled supporting professionals, i.e., medical, social and employment specialists. Generally speaking, each component of an IPS intervention constitutes a precondition for the other components to operate, although the exact weights of the mechanisms involved in the processes are unknown to us at present.

Nevertheless, in examining the evidence, the IPS model of intervention was assessed to provide moderate to strong and credible support for the effectiveness of IPS in the vocational rehabilitation of people with severe mental illness.

Comments on CBT

The modes of CBT referred to in the studies presented in Table 2 are: Cognitive Behavioural Therapy, Neurocognitive Enhancement Therapy (NET), the Thinking Skills for Working Model, Training of Self-Management Skills for Negative Symptoms (TSSN), Computer Assisted Cognitive Strategy Training (CAST), Work Social Skills Training (WSST), and Cognitive Remediation Therapy (CT). The studies encompass a variety of approaches and a range of outcome variables.

Effects were observed on the following outcome variables: employment, work activity, time at work, and income from paid employment. The effects were most visible when a CBT intervention was combined with measures to promote competitive employment (CE) or supported employment (SE). See McGurk et al. (McGurk et al., 2007). CBT is a generic category that comprises a considerable number of different approaches and modalities in terms of focus and content. These may concern cognitive functions, such as memory, learning and concentration, the planning of one's own activities, the management of decision-making situations, coping with the perceived symptoms of a basic mental disorder, and social skills.

There are many types of CBT techniques in the study material, and it is not possible to regard them all as evidence-tested for the target groups or the effects at which they have been directed.

The interventions and their various treatment or training sessions have been implemented with varying intensity, duration, and degree of integration with other interventions undertaken by health or behavioural professionals and rehabilitation personnel.

In one of the studies (McGurk et al., 2007) included in Table 2, the mode of CBT intervention studied was observed to be effective in leading to favourable work-related outcomes for people with severe mental illness (SMI). It seems reasonable to believe also that cognitive behavioural therapy and behavioural training may have effects that supplement other methods of vocational rehabilitation aimed at competitive or supported employment on the labour market for people with mental illness or disability.

Results that support the presence of reinforcement effects have been presented by McGurk et al. (2007) and Bell et al. (2008). But our research group did not find it possible to accept cognitive behavioural therapy in its entirety as a generic evidence-based category of methods for the vocational rehabilitation of people with severe mental illness. In general, the evidence supporting the effectiveness of CBT, as assessed by employment-related effects and by outcomes achieved in the vocational rehabilitation of people with severe mental illness, was regarded as limited.

Summary of results and evaluation of evidence – IPS and CBT

IPS. The conclusion of several well-designed studies (see Table 2) is that a higher proportion of people in active work can be observed in IPS groups than in the (control) groups not subject to an IPS intervention. The observed increases in normal or supported work are substantial, in the range 30–150%, but there are exceptions. In a high-quality study conducted in the UK by Howard et al. (Howard et al., 2010) no certain effects were observed. In a study organised as a collaboration between centres in Europe (Burns et al., 2007), the observable effects in several of the six participating countries were small or modest. This may indicate that the effects found in studies outside Europe do not apply in the European labour-market context, which is in many countries characterised by labour agreements or legislation that, in implementation, tend to protect healthy “insiders” rather than persons with disabilities.

CBT. The assembled documentation in several studies suggests that CBT may, in combination with labour-market-oriented measures, have an effect on our primary indicators of employability. The CBT interventions actually implemented are of many kinds. The particular methods used have not been tested or evaluated independently, so their results in target groups of mentally ill or dysfunctional individuals cannot be confirmed. However, the studies of Mueser et al. (2004), McGurk et al. (2007) and Tsang et al. (2010,

2011) lend credibility to the notion that CBT can enhance the effectiveness of vocational rehabilitation programmes targeting people with severe mental illness (SMI).

Meta-analysis. In light of the heterogeneity of the study material with regard to how study populations were generated and composed, and the contextual dependence of the methods used, we chose not to subject the study material to a meta-analysis. At this stage, the group is content to stop at a provisional assessment. It is likely that many more studies have been carried out without having been recorded in any of the bibliographic databases that are our primary sources of information.

Discussion

The comments that follow address:

- study size and design, study populations, selection, outcome variables, and work-related outcomes;
- factors underlying national and regional unemployment; and
- IPS from an international perspective.

General

Age of subjects

Most of the extracted documents described study populations with a relatively high average age, close to the average of working populations of slightly over 40, and also with a significant spread of ages. Commonly, there was no separate presentation of age-subsets of the population. Only in two of the studies, Killackey et al. (2008) and Wehman et al. (2014), however, was the entire study population under 30 years of age.

Study design

The studies assessed to be of high or moderate quality were selected into a group that was to be graded according to evidence (n=25). The studies that were carried out as RCTs are relatively small in size. The study groups subject to intervention and evaluated for effects often comprised fewer than 40 individuals. In studies that seek to quantify the effects of an intervention, the number of individuals is an important factor. It needs to be borne in mind that, with small samples, it is more difficult to demonstrate the effects and ascertain the significance of intervention outcomes.

The RCT is a powerful study design, in that it enables epidemiologic control and has the capacity to discern the effects of a defined intervention. The studies that were selected for evaluation, following examination of relevance and quality, were performed in the US, Australia, England, China (Hong Kong), Japan, Canada, The Netherlands, Switzerland and Sweden. One study (Burns et al., 2007) comprises investigations of six centres for mental health, each in a separate European country. The results of our review indicate that more and larger studies are needed to obtain stronger evidence, and that it is not yet clear whether IPS actually is a successful strategy in European countries without adaptation to national context.

Randomised studies, sometimes known as randomised clinical trials but referred to here as randomised controlled trials (RCTs), are commonly regarded as having the study design that offers the best conditions for assessing effects and effect sizes in intervention studies.

RCT was, in consequence, included in the terms we used to search the literature databases. The techniques for carrying out randomisation to control groups were described, but usually not in great detail. Throughout, it seems as if the ambition has been to achieve matching with regard to gender and age. Matching by category of mental illness was implemented in only a few studies. In this report, we have acknowledged and accepted the authors' explicit declarations that their RCT procedures satisfy formal RCT requirements. In the international research literature, randomisation is usually seen as having a distinct and generally accepted meaning. When we encountered the term RCT in the reports we examined, we assumed that it refers to common practice in research methodology.

A general question that often arises on scrutiny of studies in the public-health domain concerns the control technique in the study design. When comparing the effects to be expected as a result of a type of intervention, such as, in this instance, individual placement and support (IPS) or/and cognitive behavioural therapy/training (CBT), it is of critical importance to indicate the basis of comparison and reference frame chosen for interpretation and assessment of the observations made.

For questions framed in epidemiological terms in studies designed to assess the effects of an intervention, a control technique is commonly sought, which often involves the identification of a group or category of individuals not subject to any intervention at all. In the context of rehabilitation and return to work, this procedure faces insurmountable difficulties, in particular in Sweden, given the organisation of health, social and medical services. It is commonly regarded as inconsistent with the fundamental ethical principles of the caring professions to offer a non-treatment alternative, which entails in practice that no action is taken in relation to some health-care clients. In many regions, e.g., in Germany and several US states, legislation has been passed to prohibit the implementation of a zero-treatment option, or to give placebo treatment under certain circumstances. Most available modes of medical therapy can be presumed to have at least some effect on the target variable in any intervention study. These restrictions on study design are also likely to apply to work-related outcomes.

Comparisons between treatment/intervention/index groups in an epidemiologic study are made to assess optional treatment regimens or intervention programmes that target a specific variable, in this case employability. Groups of individuals may be exposed to measures that are chosen to mimic the supposed effects of the intervention under examination. This procedure is likely to even out differences between the study groups being compared. But, such differences in outcomes are still important. It is important to recognise that the true zero-action strategy is not available; or it is not possible to apply it in practice. Under such circumstances, observed differences between intervention and control group(s) may actually underestimate the effects of the intervention in question.

Population

The scientific documents examined here were all targeted at the outcome of strengthening the employability of people suffering from mental dis-

ease/functional disability/handicap. The target category is usually defined as people with severe mental illness (SMI). This term is an aggregate, which includes many different disorders and states of mental dysfunction. Commonly, usage of the term SMI is not explained or specified in the studies. In many of them, one likely explanation lies in the low statistical prevalence and incidence of the particular illness in question. To this may be added the difficulties and obstacles involved in collecting study populations for close observation/examination.

The study population in the literature we have identified often consists of individuals with diagnosed schizophrenia, schizophreniform disorder, unipolar or bipolar states of depression, and other psychotic disease states. Since the types of diseases or disorders are not usually specified, there is no possibility of identifying differences in population compositions. In addition, it is important to study broader populations, e.g., where the diagnosis is anxiety or severe depression. In practice, it goes without saying that the population chosen usually depends on the population base available for any particular study, whereas it would also be of considerable interest to examine a more heterogeneous population.

One shared feature of the populations selected is unemployment, ranging from a few months to a long-lasting series of absences over many years. This emphasises the need to follow up the outcomes of interventions over a number of years in order better to evaluate long-term effects.

A common selection criterion of prime importance for the admission of individuals to an IPS programme is the presence of work motivation. Even here it would be interesting to design studies where the population is more general, and where degrees of motivation could be correlated with successful outcomes.

The term serious mental illness (SMI) makes it explicit that the disorder/dysfunctional state in question is characterised by a condition that, by its very nature, constitutes a limitation to the person's functioning and prospects of change.

SMI is a dominant feature of the articles selected in this survey. The severity of the mental illness under study is itself a confounder of any association between an intervention and its possible or potential effects. The type of disease may also in its psychopathology harbour employment outcome determinants.

For example, in several of the studies examined, it was observed that people with diagnosed schizophrenia found it more difficult to achieve goals like competitive or supported employment than people with other kinds of SMI.

In one study, Wehman et al. (2014), referred to in Table 2, there is a presentation of an intervention programme aimed at meeting the employment needs of youth with autism spectrum disorders (ASD), which for the relatively small number of persons in the study appears to be very successful. This was the only identified intervention study of young persons with ASD that addressed employment outcomes and met the admission criteria

for our review. The study was designed as a randomized clinical trial, comparing an intervention group of intensive business-based interns with employment support in the final year of high school in the so-called SEARCH project, plus a specific ASD support group, with a control group receiving individual educational support at school but with no involvement in the SEARCH project. This study population, consisting of individuals characterised as carriers of the ASD health entity, differs in important regards from those in the severe mental illness (SMI) category used in the other studies included in Table 2.

Selection of participants

The selection of treatment groups for IPS and CBT interventions usually involves a two-step procedure, aimed at identifying and assessing work motivation and suitability for admission to a rehabilitation programme. Both require informed consent, and an explicit and verifiable wish to join the programme on the part of the applicant.

The examinations and interviews performed during selection and admission vary between research groups in terms of ambition and accuracy. Some of the reports contain a comprehensive account of the methods used, but in others this is not the case. Varying techniques implemented during selection may entail differences in the motivation of individuals selected for the studies. Accordingly, selection mechanisms or factors may be sources of confounding. In Howard et al. (2010), it was observed how the pre-randomisation/admissibility procedure appears to be more rigorous in IPS studies in the US than in the UK. One implication of this is that there are differences in the selection of participants, with the consequence that populations will differ between intervention studies with regard to severity of mental illness and motivation to participate.

The outcome variables: work and employment

In the bibliographic databases, research reports were identified using the criteria “work” and “employment”. Questions of quality of work, and individual capacity to perform work tasks, were not explored. An additional restriction was imposed on documents that did not include information on duration of employment or assessments of envisaged employment or work involvement. This means that time under observation becomes relevant. Also, there is a distinction between a person’s capacity to obtain employment, or to be conferred work tasks, and his/her capacity to retain such employment or tasks.

Successful job retention is determined by factors that were not usually analysed in the studies. Retention of employment is usually considered in terms of person-related factors, although partly by factors affecting all, or, at least major segments of, people on the labour market. Commonly, these factors include:

- the individual's capacity to meet the requirements of work tasks with regard to performance and expectations;
- the individual's ability to establish relationships with supervisors and managers at work;
- the individual's ability to establish relationships with fellow workers and colleagues;
- the individual's own motivation to retain employment/work tasks; and
- the motivation and incentives in the company/organisation to continue to provide employment or work tasks.

Several of the studies refer to supported employment (SE) as the targeted outcome. Others chose "normal work", usually referred to in the literature as competitive employment (CE), and naturally tended to have CE as the primary intended outcome of the vocational-rehabilitation process. Competitive employment (CE) has been taken to mean work with commonly occurring tasks on the regular open labour market, with supervision provided by the employing organization at a level of remuneration regarded as normal in the context of those tasks. Supported employment (SE) refers to employment with person concerned receiving support aiming at job retention in many different forms, which may f.i. in Sweden include financial support.

Which job tasks are to be found in the competitive-employment category are generally not specified or discussed in detail. In the article by Howard et al. (2010), however there is an interesting account of outcomes of competitive (normal) employment after one year of observation following an IPS intervention. Of 22 people who held employment equivalent to CE, 10 (45%) had tasks in restaurants or canteens, 5 (23%) in sales or customer service in retail stores, 3 (14%) in administrative and office work, and 2 (9%) in work requiring vocational training. A further 2 (9%) were found in work that required a professional qualification. These figures indicate that the availability of jobs for which vocational training is not necessary is likely to be a determinant of the results of rehabilitation programmes that address the needs of mentally ill and disabled individuals. It seems clear that the types of work tasks on the regular labour market that might be available for competitive or supported employment are usually transient, in apprenticeships, or in jobs where the requirement of prior schooling or vocational training has not been set high.

In the studies examined, there are glimpses of an important distinction between competitive employment (CE) and supported employment (SE), in that CE, from a practical point of view, is seen in all regards as normal employment. This means, for example, that the employer takes responsibility for recruiting substitutes for all people in CE in the event of absence due

to poor health or holidays. In the case of SE, by contrast, it seems to be just as common for the organisation accountable for the work placement to assume this responsibility.

In the studies reviewed, there is no detailed discussion of principles or issues concerned with the setting of levels of pay, or with conditions of employment, insurance policies, employment protection, or other legal or workers' rights. Experience shows that, under these circumstances, there are factors that influence the prerequisites and incentives for becoming involved in vocational rehabilitation. These factors also determine the conditions for companies/organisations to become involved in arranging new jobs, internships or practitioner places for people with mental disorders or dysfunctions.

Work-related outcomes

The primary outcomes we looked for in this systematic literature review, i.e., competitive (normal) or supported employment, time at work (total, monthly, weekly) and earnings from employment, are of a kind that can be recorded and documented, and are therefore objective. These features of work are all outcomes that characterise employability. The outcomes can therefore be seen to be true indicators of employability. These are the kinds of documented outcome variables that our research group looked for in the studies.

The situation may be different, however, when it comes to secondary outcomes that are related, for example, to life quality and self-perceived health, which is not factual information like that on the features of employment enumerated above. Instead, the information collected often consists of individuals' perceptions and recalls of events and experiences. In such event, the use of a "blinding" technique may be called for in order to "manage" – that is, to "neutralise" – the researchers' prior knowledge of the study population, and the possibility that such knowledge may have affected implementation of the rehabilitation regimen in question.

National and regional unemployment

Cook et al. (2006) examined the impact of local and regional labour unemployment rates on the recruitment of unemployed, mentally and functionally weak individuals with a "psychiatric disability" into rehabilitation programmes aimed at achieving competitive or supported employment. In one intervention study, 1,273 participants from 7 US states were randomised to a treatment group that received supported employment and to a control group with access to other services. The groups were observed over 24 months.

Using county-based information on unemployment from the US Bureau of Labor Statistics, in the same study, Cook et al. (2006) found that the proportion of individuals in the treatment group who attained competitive-employment status was about twice that of members of the control group in recruitment areas with low unemployment rates. The differences were not as great for those in high-unemployment areas. Also, Watzke et al. (2009)

found that a high rate of unemployment in the area where an experiment is conducted seems to affect the results of psychiatric rehabilitation programmes aimed at competitive employment. Also, in the multi-centric European study of IPS in six regional rehabilitation centres, Burns et al. (2007) observed that differentials in IPS effectiveness reflect variations in the local rate of unemployment.

Confounding factors

The following confounders were found to be important in all the studies examined:

- the severity of the underlying psychiatric disease/dysfunction and the degree of voluntariness/volition/motivation in recruitment;
- the criteria used for selection of study populations;
- the local labour-market conditions with regard to unemployment rates and/or shortage of work opportunities;
- the nature of the rules regarding vocational rehabilitation, financial compensation for sickness and disability, and the existence of rehabilitation benefits; and
- national or local practices in health and medical care and public social services for organising the rehabilitation of people suffering from mental illness or disability.

Confounders in all these categories may influence the selection of individuals into vocational-rehabilitation programmes and the effectiveness of the programmes.

Access to a labour market with work tasks and employment for people with mental illness or disability determines the prospects of implementing effective interventions. The last two points referred to in the list above may limit the effects of an intervention, or even constitute obstacles to the implementation of a programme. In the studies examined, individuals' medical diagnoses, courses of disease, and other aspects relevant to results and outcomes are touched upon to only a very limited extent. Issues associated with selection into the study population and possible confounding effects are only rarely addressed. This in itself is not surprising, since an *à priori* point of departure in practically all the RCT studies was that individual motivation is important. In fact, all the studies see motivation as a powerful determinant of favourable work-related outcomes.

One further factor to take into account is the degree of awareness on the part of rehabilitation professionals and researchers of the relevance and importance of the prevailing labour-market situation.

The importance of national rules, in the forms of legislation and public guidelines, and current professional practices in health care organisations – which may, at least in part, be culturally conditioned – should be recognised as determinants of the outcomes of vocational rehabilitation.

The importance of country context – IPS

In the final selection of scientific documents for evaluation of the effects of IPS interventions, there are articles and reports from research groups in the US, the UK, Germany, Canada, The Netherlands, Switzerland, China (Hong Kong), Australia and Sweden. The documents were all evaluated in the context of their country of origin.

Five selected documents were regarded by the research group as having particular relevance in considering the effectiveness of IPS-intervention methods from an international perspective:

- Burns et al. (2007) conducted an RCT of IPS versus high-quality train-and-place vocational rehabilitation in six European centres with different labour market and health and social service conditions. A randomized sample of 312 individuals with psychotic illness was obtained (approx. 50 per site). Inclusion criteria were a minimum of two years illness duration with at least one year of continuous unemployment. Follow-up was 6 months. The primary outcome was any open employment. Secondary outcomes included time to employment, duration of employment, and hospital admission. IPS was found to be more effective than vocational services for all outcomes. 85 IPS patients worked for at least one day compared with 43 vocational-services patients. The IPS patients were significantly less likely to be rehospitalised. Local unemployment rates explained a significant amount of the variation in IPS effectiveness.
- Watzke et al. (2009), in a cohort study not included in the reports subject to evidence grading, noted that, in the Burns et al. study (2007), referred to above, there was no clear effect of intervention in Ulm, Germany. For this reason, a cohort study was set up to assess the longitudinal effectiveness of a comprehensive vocational rehabilitation programme in Germany. In a non-randomised open study, 106 people on two rehabilitation programmes were followed-up for employment status 9 months after programme termination. With regard to intervention, both programmes followed conceptually similar models. The main finding was that vocational services proved to be effective in finding day-structuring activities for subjects with severe mental illness. In both the groups compared, functional improvement was to be observed, as too were outcomes regarding employment in sheltered workplaces, and also in regular employment or apprenticeships. The rate of unemployment in the geographic area of study was roughly 20%, and this was referred to as a difficulty in finding employment. Reference is also made to rigidity in the current implementation of German labour and employment law, and restrictions on establishing RCT-designed studies in German social law. This study, i.e., Watzke et al. (2009), was not included among the articles selected for grading of evidence.

- Wong et al. (2008) present the results of a study of IPS interventions in China (Hong Kong) aiming to examine the effectiveness and applicability of an employment programme based on individual placement and support in a Hong Kong setting. In a RCT-designed study of 92 unemployed subjects, the IPS model was compared with a conventional vocational rehabilitation programme followed-up for 18 months. In the group subjected to IPS intervention, the rate of competitive employment was observed to be 70% (compared with 29% in the comparison group). One notable factor to take into account in interpreting results is high mobility on the labour market, which, according to the authors is characteristic of Hong Kong. It is relatively easy to become employed and to find job tasks in Hong Kong, but it is also relatively easy to terminate a commitment to employment. In Hong Kong, this is described as “job-hopping”, which refers to a contextual labour-market characteristic that has implications for people’s work involvement, and also for the availability of both competitive and supported employment, and associated tasks, of both longer and shorter duration.
- Howard et al. (2010) published what is up to now the largest study of IPS implementation in the UK. The aim of the study was to investigate the effectiveness and cost-effectiveness of IPS in the UK. In a RCT-designed study, individuals with severe mental illness in South London were randomised to IPS or local traditional vocational services (treatment as usual) and followed-up with assessments one year later. In the study population of 219 participants, there was a difference, but not a significant one, between the treatment-as-usual and IPS-intervention groups in obtaining employment (13% in the intervention group, and 7% in controls). The authors found no evidence that IPS was of significant benefit in achieving competitive employment at follow-up. In their discussion of findings, the authors note the possibility of suboptimal implementation of the IPS intervention procedure and economic disincentives in IPS programmes, leading to differences in motivation in individuals with severe mental illness when comparing US and non-US studies. The authors make some observations suggesting that one important difference between US-based studies and ones carried out in European countries lies in the efforts made in the US to recruit and select study populations on the basis of assessments of the motivation of subjects. Howard et al. (2010) expressed doubts whether a group of highly motivated people had really been selected into the UK study. The uncertainty increased further because two of the constituent parts of the intervention – the intended involvement of an employment expert, and the integration of labour-market-oriented measures and medical and socially curative activities – had been only partially implemented. This raised the fundamental question of whether the intervention in the UK was an IPS in any real sense. If it was not, it would be hardly surprising that no effects were observed.

- van Erp et al. (2007) carried out a multi-centric survey in The Netherlands, with 24 months of follow-up to identify obstacles and facilitating factors in the process of implementing an IPS model for vocational rehabilitation. The study was carried out on four sites, representing vocational rehabilitation teams addressing employment difficulties of persons with severe mental illness. The study population consisted of 316 subjects receiving supported employment services, of which 233 were followed-up by monitoring for 24 months. This study was not included in our selection for the grading of evidence. In their discussion, the authors, however, make interesting observations on factors facilitating and impeding the process of vocational rehabilitation following the IPS model of intervention. They summarise their observations as follows:
 - Funding problems presented a critical barrier to project implementation on three sites.
 - Lack of time for programme leaders to manage the supported employment programme.
 - Inadequate cooperation between the mental health organisations and vocational services, in particular those provided by profit-based vocational agencies, proved to be a challenge.
 - Cultural values, disability policies and labour market conditions were ubiquitous barriers. One fundamental obstacle was observed to be the accountability of employers hiring someone found to suffer from a mental illness. Once a person is employed, the employer may have a hard time in seeking to annul the employment contract.
 - The authors emphasise the importance of the culture surrounding people with mental illness and dysfunctionality in their relationships with work tasks and the work group, and the organisation of and around IPS team. Bringing the strands of these studies together, the following factors were observed to be important in the success or failure of interventions. .

Important for success:

- professional competencies (including the social competence) of employment specialists/experts;
- integration of mental-health personnel into teams with rehabilitative tasks;
- commitment to implementation of the IPS intervention model; and
- collaboration between the case managers/coordinating experts responsible for the participants in the experiment/programme and the authorities/public bodies with responsibility for the labour force (social services, employment services, insurance services, etc.).

As obstacles to or complicating factors in rehabilitation were seen:

- absence of an employment specialist;
- absence of management and supervision;
- absence of collaboration between the authorities and agencies involved (social services, employment services, insurance services, etc.);
- lack of financial support; and
- difficulties in organisation and management, in particular a lack of continuity.

The observations made by van Erp et al. (2007) are likely to be relevant in many Western European countries. They are in line with the findings of Heffernan and Pilkington (2011), as reported in their systematic review of scientific reports addressing issues raised by implementing the IPS model of vocational rehabilitation among people with a psychiatric disease or mental dysfunctionality in England, Scotland and Wales.

In their review, Heffernan and Pilkington (2011) conclude that the available evidence, which includes several RCT studies of high quality, supports the notion of IPS being a more effective method for the vocational rehabilitation of people suffering from psychiatric disease or disability than the traditional methods commonly employed. In commenting on this conclusion, they add the observation that the IPS method package has probably been implemented less consistently in studies carried out in the UK than in those carried out in the US, which implies that the results, in terms of measured outcomes, are less conspicuous in the UK. In the local-government sector, achieving favourable results seems to depend on the availability of competent and appropriate vocational specialists.

In the reports published by van Erp et al. (2007) and Howard et al. (2010), the targeted outcomes were normal and supported employment, and also the provision of regular vocational-training programmes aimed at specific occupations (see also Rinaldi et al., 2010).

Howard et al. (2010) also suggest that IPS strategies may run into difficulties in countries outside the US. Contextual circumstances and factors that may explain a lack of effectiveness include differing labour-market structures, differences between the social-insurance systems in Europe and health insurance in the US, and the relative absence of incentives for companies/organisations to take on people with chronic mental illness and the relatively high cost – and thus incentive effect - of health care in the US. North Americans who regard themselves as being in poor health may still have an incentive to seek employment in some form. The threshold for labour-market entry may be higher in many European countries than in the US.

Other differences between US-based and European studies may be:

- differences in rehabilitation methods and techniques for the assessment of the motivation of individual patients with a mental illness or disability; and
- differences with regard to organising the management and integration of IPS and the work-related contributions of employment coaches.

In the UK, Heffernan and Pilkington (2011) and Howard et al. (2010) have reminded us of the dependence of the IPS model on the context in which it is implemented. There are still only a few studies of quality aspects of either IPS interventions seeking to achieve the target of competitive (normal) employment on the open labour market (CE), or of programmes seeking to achieve placement in supported employment (SE), among people with a mental illness or disability.

Conclusions

In light of our systematic literature review of available methods for strengthening the employability of people with mental illness and mental dysfunction, with employment as the desired outcome, we make the following concluding remarks.

Individual Placement and Support (IPS)

In the research databases reviewed, there are now a sufficient number of studies with a randomised controlled design (RCTs) to permit evidence-based evaluation of the individual placement and support (IPS) model of vocational rehabilitation. The evidence is presented in our literature survey in terms of whether IPS effectively influences certain specific outcome variables, including competitive employment, supported employment, and work activity.

To this factual statement should be appended the important reservation that the studies found in the scientific literature and reviewed by us were all planned and carried out in their own national contexts, which has the implication that their results cannot be regarded as directly comparable. It is not advisable simply to assume that the studies were conceived and planned under more or less the same circumstances. The study populations are not necessarily identical in terms of medical diagnoses (in both treatment and control groups). Further, there are selection factors of different kinds that have affected the choices of individuals and study populations, in particular with regard to how motivation has been taken into account as a prioritised element in application of the IPS model. It is possible to implement an IPS intervention, with varying degrees of consistency, using all the model's components, but not all components are necessarily considered and given the same weight in actual applications. To this should be added the possible effects of differences in admission procedures and severity of illness. Our observations support the idea that there are inter-country differences in the generation of study populations.

In the view of the review group, the evidence that IPS has a favourable effect on employability is good, since it is based on follow-ups in longitudinal RCT studies with a moderate to strong degree of evidential value. High quality studies of IPS intervention have now been published in the US and Canada, in several European countries, in the Asian countries China and Japan, and in Australia. The observed effects on work-related outcomes, such as competitive employment, supported employment and work activity, are credible and can be accepted as the results of intervention. Randomisation, sometimes supplemented by matching, makes it unlikely for effects to have arisen by chance, or been caused by one of several possible confounding factors. The selection carried out prior to randomisation into treatment and control groups in order to recruit highly motivated people is not

sufficient to explain the effects that have been attributed to IPS. In the studies where impacts on indicators of employability have been observed, these are likely to be attributable to the combined effects of selection and intervention.

Factors deserving attention are the framing of the reviewed studies in the context of national legislation and other regulatory systems, including social security and insurance systems, conditions on the labour market, and the labour-market culture. These conditions may differ in many regards when making comparisons between countries; they affect the selection of study populations, the content and objectives of vocational training programmes, and also related interventions and evaluations.

Cognitive Behavioural Therapy (CBT)

In the studies examined, cognitive behavioural therapy (CBT) was either an independent intervention or, as in one of the 25 studies on which our conclusions are based, was combined with another method, in this case IPS. As a concept, CBT does not have the homogeneity of IPS, and the described interventions combined with CBT represent many different kinds of programmes. At present, there is no consensus on whether or not the methods should be declared evidence-based when they are implemented with the aim of achieving the vocational rehabilitation of people with a mental illness or disorder. To achieve such recognition, it is necessary, following common practice in the international scientific community, to organise research to include independently performed studies that would confirm any of the favourable results obtained so far.

In the study population of selected research reports, however, there are studies supporting the hypothesis that CBT may be an effective supplement to labour-market-oriented intervention. The determinants of effectiveness in this regard concern how CBT is applied, its substantive content, its duration, and how it is integrated with other measures.

At present, empirical scientific evidence about CBT applications is mainly derived from the use of CBT in psychiatric therapy, where it addresses non-psychotic illnesses, and much less from its use in the management of severe mental illness. Professor Robert E. Drake of the Dartmouth Psychiatric Research Center in the US, and one of the originators of the IPS method, has described the current situation as follows: “Many trials and attempts have been made to supplement IPS programmes for supported employment with suitable pedagogic adjuvants. At the present time, the evidence supporting the effectiveness of training of social skills, motivation-oriented interview techniques and training, and pre-employment training is scanty. As regards cognitive behaviour oriented treatment, such as cognitive remediation, the scientific evidence is better. The components and techniques of such programmes are, however, under scientific debate, and it seems appropriate to regard them as being in a phase of ongoing research and development” (Drake, 2012).

On the basis of our review, we conclude that CBT as a generic term covers a variety of therapies. At present, however, there is no justification for including CBT as a category of generally valid evidence-based interventions aimed at the vocational rehabilitation of people suffering from mental illness or disability. The strength of the evidence supporting the effectiveness of CBT in this regard is assessed as limited at the present time.

There are good reasons to scrutinise closely the question of which CBT methods are available for use in the vocational rehabilitation of people with a psychiatric disorder, mental illness or disability. It is appropriate to regard CBT, rather like psychiatric rehabilitation, as a collective term for individual-support strategies that enhance other measures, such as IPS, targeting the labour market and workplaces. The scrutiny should cover the purpose of CBT use, target groups, the requirements on, and competencies and responsibilities of, the professionals carrying out such interventions, intensity and length, and the integration of parts of CBT into comprehensive programmes with components that go beyond CBT.

Multimodal employment support

A third type of intervention, emerging from a randomized controlled trial (RCT), presented in Table 3 of this report, addresses vocational outcomes in a study group of young adolescents with autism spectrum disorders subject to an intensive multimodal support programme. This intervention programme is referred to as SEARCH (Wehman et al., 2014). The evidence presented for the effectiveness of intervention consists of just one study, which has not been replicated or independently confirmed. Accordingly, the strength of evidence with regard to this type of intervention cannot be assessed at the present time

Lessons learned

- There are only a few intervention studies of cognitive rehabilitation of mentally ill and functionally impaired people under 30 years of age where employment is the main outcome variable.
- There are only few intervention studies addressing employment outcomes of persons with learning difficulties, including Down Syndrome and other chromosomal aberrations, and youth with autism spectrum disorders (ASD).
- In future studies, it is necessary to utilise documentation of and experiences from studies of large populations, but, in the selection process, attention should also be paid to specific age groups. The differences between young adults and adults with accumulated work experience may be important in terms of outcome.

- Cognitive behavioural therapy (CBT) is a realm of therapy with several different modalities that may be effective as constituent elements in labour-market-oriented intervention programmes aimed at the vocational rehabilitation of people with a mental illness or disability. In the current literature review, no modality was found to have been subject to scientific evaluation in independent studies with regard to employment effects or other vocational variables.
- In light of our findings and observations, it seems likely that CBT methods may be effective components of therapeutic programmes when integrated with interventions aimed at placement on the labour market, such as IPS and SE.
- In general, there is a need to strengthen national research agendas by addressing multidisciplinary and integrated interventions for promoting the employability and work capacity of young citizens suffering from mental ill-health in the context of national structures and systems responsible for work placement and vocational rehabilitation.
- Collaboration between the many bodies involved – employers, employment agencies, the Social Insurance Agency, county councils, health and medical services, municipalities and relevant professional associations – is at present a largely neglected arena of research and development, but one with significant needs. It requires strengthening with a view to capturing and exploiting the development of methods, advancing the frontier of knowledge, and utilising international experiences.

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Uppsala University and the Swedish Social Insurance Agency jointly undertook to perform the literature review, and to produce this report. Responsibilities for the report were as follows:

- Peter Westerholm – planning and management of review project, contacts with the Swedish Social Insurance Agency
- Magnus Helgesson – planning and implementation of the database searches
- Magnus Gustafsson – logistics in relation to distributing the material among members of the project group
- Ingvar Lundberg, Ingrid Anderzén, Per Lytsy, Pia Rehfish, Magnus Helgesson, Magnus Gustafsson, Edward Palmer and Peter Westerholm – reading of abstracts and summaries, quality assessment of selected documents
- Peter Westerholm, Edward Palmer, Magnus Helgesson and Magnus Gustafsson – preparing the report
- The entire project group – scrutiny, supplementation and editing of the report

The project group has reached a consensus over the conclusions presented in this report.

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Annex: Individual Placement and Support (IPS) in Sweden

This annex summarises current experiences of implementing the IPS approach to the vocational rehabilitation of subjects with severe mental illness in Sweden.

There is only limited experience of the IPS method in Sweden. Ulrica Bejerholm, Cecilia Areberg, Caisa Hofgren, Mikael Sandlund and Mile Rinaldi have published a RCT study of an IPS intervention programme, which is included in Table 2 (Bejerholm et al., 2015). The authors concluded that IPS was effective in a Swedish context in terms of gaining employment, and of people undergoing the intervention becoming integrated within the local community. The same group of authors (Bejerholm et al., 2011) had earlier reported on two patient case histories drawn from an ongoing IPS programme. In these reports, the authors describe a series of practical difficulties that were encountered in the course of the project, and which had to be resolved.

These case scenarios raise some issues of considerable importance in principal, which are relevant to discussion of whether the necessary preconditions for organising IPS programmes, for competitive or supported employment, are met in Sweden. They involve, in one form or another, the provision of external support to the people requiring treatment.

The authors engage in an in-depth discussion of all the factors to examine when considering IPS strategies in the context of prevailing rule systems, including job security, workers' rights, and social security. Several other researchers have joined in the discussion. The conclusion reached in Hasson et al. (2011) was restricted to the prospects of organising effective IPS interventions in Sweden that follow the intentions of the originators of the IPS method. They regard the present regulatory system as having been principally devised as a support for and adjunct to the stepwise procedure for vocational rehabilitation that is currently established as best practice in Sweden. Both research groups, (see Hasson et al., 2011 and Bejerholm et al., 2015) have, in discussing their observations, expressed reservations concerning the Traditional Vocational Rehabilitation (TVR) system as it may sometimes create obstacles to people's gainful employment and community integration.

The established view entails that there are practical obstacles to the implementation of IPS, which implies a radical shift in paradigm with regard to the coordination of education and training in relation to placement on work tasks, with or without other kinds of external support. The implementation of an IPS programme entails a reversal of the established rehabilitation procedure, in that work placement comes before education and training.

In attempts to involve employment specialists in rehabilitation programmes, some difficulties were observed in interaction and collaboration with officials in the social-insurance offices, social-support services, vocational-rehabilitation teams, and public-employment agencies. Fears of having social benefits reduced or withdrawn were brought up by people who had been contacted with a view to participating in supported employment programmes. This aspect often came up in discussions of daily sickness-absence benefits. Medical rehabilitation teams sometimes voiced misgivings about the hazards of proposed supported employment, in that it might give rise to mental strain, and thus be counterproductive in relation to the overarching goal of rehabilitation.

To this it can be added that perceived uncertainties were revealed about the consequences of changes to the social-benefit system and their implementation, the introduction of the rehabilitation-chain model, and the placing of restrictions on the granting of retirement benefits. These uncertainties seemed to affect the views and attitudes of both the insured and staff in the social-insurance offices when confronted with amendments to regulations with potentially significant consequences. In many quarters, reservations were raised about early interventions aimed at enhancing the freedom to choose and autonomy of the people concerned, and the early introduction of work tasks and activities. There were doubts and reservations about the work organisation and management of rehabilitation projects, which affected the commitment of the health and other professionals involved.

One frequently recurring obstacle to the search for normal work tasks on the regular labour market, i.e., those encompassed by the competitive-employment target variable in IPS nomenclature, concerned wage expectations. Clear doubts were expressed about employing people for whom little information is available, despite the possibility of obtaining the wage subsidy administered by the employment agencies.

In general, the professional staff of the social-insurance offices, social-support services and employment agencies were clearly interested in getting to know more about the IPS model. It was, however, often maintained by health professionals that the present system of benefits, with its own procedures and administrative routines, is an obstacle to the introduction of alternative strategies that place greater emphasis on individual autonomy and freedom to choose (as enshrined in the IPS model). In principle, the core tenet of the Individual Placement Support (IPS) model is “First work, then training and education”, which encapsulates its approach to renewal.

Hasson et al. (2011) concluded that reform of current rehabilitation with a view to making evidence-based practice models available to everyone in need of rehabilitation services is hard to bring about in the Swedish social-insurance system within the limits of current practice. With regard to IPS and Supported Employment (SE), the path forward seems to be to attempt to improve cooperation between and integration of the agents involved, with the IPS model providing a set of guidelines.

Sweden, like the other Scandinavian countries,¹ is nevertheless moving in the direction of exploring the possibilities of IPS and SE for persons with mental impairments. In two recently published documents, Sweden's National Board of Health and Welfare (Socialstyrelsen) has commented upon and, in clearly framed and carefully balanced statements with a cautionary tone, recommended both IPS and CBT as valuable strategies for the vocational rehabilitation of people with mental illness or disability. The documents are: "National Guidelines for Psychosocial Interventions in Schizophrenia or Schizophrenia-like States – support for guidance and management" (Socialstyrelsen, 2011), and the "Manual for Assessment of Programme Fidelity for Individual work – support in following the individual placement and support model" (Socialstyrelsen, 2012). The extent to which IPS and SE will make inroads into the Swedish institutional framework and vocational rehabilitation culture for persons with mental disorders remains to be seen.

¹ The Swedish language version of this study (Westerholm et al., 2013) (<https://www.forsakringskassan.se/wps/wcm/connect/e067258e-03c2-42b6-b87b-9b257d48d2de/socialforsakringsrapport-2013-03.pdf?MOD=AJPERES>) also includes a section on the current state of implementation of forms of supported employment, such as IPS, to help young adults with mental illness or impairment due to mental disorders enter into either normal or supported employment in other Nordic countries and the UK. It is indicated that the other Nordic countries are in about the same position as Sweden; that is, SE and IPS are being discussed for the group of young adults identified in the present literature review. However, to the extent that supported employment may occur in different forms and contexts, there are no general evidence-based results. The potential benefits of SE are recognised by the authorities while, at the same time, generally high unemployment rates, specifically for young adults, are seen as a serious impediment to achieving successful vocational outcomes.

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