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Work and psychiatric disabilities

A person, environment, and occupation perspective on
Individual Placement and Support

Annika Lexén



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AKADEMISK AVHANDLING

som med tillstånd av Medicinska fakulteten vid Lunds Universitet för avläggande av
doktorsexamen i medicinsk vetenskap kommer att offentligen försvaras i SSSH-salen,
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Abstract This thesis adds to the knowledge base of how the Individual Placement and Support (IPS) can be optimized to secure a more sustainable working career for people with severe mental illness (SMI). The thesis has given the IPS-participants an active voice about what it is like to start to work in a Swedish context, visualised the psychiatric disability in relation to work, discerned the support and process in IPS, and emphasized the employers' experiences in an IPS-context. Study I, a multiple case study, aimed to discern the support and process in IPS that involved job-search support, job-matches, adjustment of the match by providing accommodations by on- and off-worksite support, and organizing an individually adapted IPS-network. The initial job-match was an important factor for increasing or decreasing job-tenure among the IPS-participants. The social work environment was an important accommodation area. Previous work experience, disclosure, and not being in an acute phase of the illness were important for utilization of IPS. The qualitative interview Study II explored the IPS-participants' perceptions of their worker role and work environment. Work had mostly a positive impact on daily life, although it was a struggle to fit in and the mental illness affected work performance. They perceived supportive and demanding factors in their work environments, such as the employer's support and the social atmosphere among colleagues. Own personal strategies were needed to cope. The cross-sectional Study III studied the relationships between cognitive functioning, communication and interaction skills, and vocational outcomes among people with SMI attending vocational services for 18 months. Higher scores in planning, reasoning and problem solving best explained the variation in having competitive employment or not, and correlated with increased hours and weeks in competitive employment. Higher scores in delayed verbal recall correlated with having a higher income. Communication and interaction skills differed between the groups of employment status and correlated with hours and weeks in competitive employment, higher income, and higher scores in delayed verbal recall. Study IV, a grounded theory situational analysis study, showed that the employers strove to maintain their social commitment throughout the process from taking on IPS-service users to supporting them at work. The employment specialist's trustworthiness and professional approach, as well their at-work support was considered crucially important for the employers' readiness to open the door. In conclusion, the organization of the IPS, and the articulation of the support and process in IPS may be important to address in order to increase job-tenure and employment success among IPS-participants.		
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Work and psychiatric disabilities

A person, environment, and occupation perspective on
Individual Placement and Support

Annika Lexén



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Faculty of Medicine

Department of Health Sciences/Work and Mental Health

Lund University, Sweden

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Abstract

This thesis adds to the knowledge base of how the Individual Placement and Support (IPS) can be optimized to secure a more sustainable working career for people with severe mental illness (SMI). The thesis has given the IPS-participants an active voice about what it is like to start to work in a Swedish context, visualised the psychiatric disability in relation to work, discerned the support and process in IPS, and emphasized the employers' experiences in an IPS-context. Study I, a multiple case study, aimed to discern the support and process in IPS that involved job-search support, job-matches, adjustment of the match by providing accommodations by on- and off-worksites support, and organizing an individually adapted IPS-network. The initial job-match was an important factor for increasing or decreasing job-tenure among the IPS-participants. The social work environment was an important accommodation area. Previous work experience, disclosure, and not being in an acute phase of the illness were important for utilization of IPS. The qualitative interview Study II explored the IPS-participants' perceptions of their worker role and work environment. Work had mostly a positive impact on daily life, although it was a struggle to fit in and the mental illness affected work performance. They perceived supportive and demanding factors in their work environments, such as the employer's support and the social atmosphere among colleagues. Own personal strategies were needed to cope. The cross-sectional Study III studied the relationships between cognitive functioning, communication and interaction skills, and vocational outcomes among people with SMI attending vocational services for 18 months. Higher scores in planning, reasoning and problem solving best explained the variation in having competitive employment or not, and correlated with increased hours and weeks in competitive employment. Higher scores in delayed verbal recall correlated with having a higher income. Communication and interaction skills differed between the groups of employment status and correlated with hours and weeks in competitive employment, higher income, and higher scores in delayed verbal recall. Study IV, a grounded theory situational analysis study, showed that the employers strove to maintain their social commitment throughout the process from taking on IPS-service users to supporting them at work. The employment specialist's trustworthiness and professional approach, as well their at-work support was considered crucially important for the employers' readiness to open the door. In conclusion, the organization of the IPS, and the articulation of the support and process in IPS may be important to address in order to increase job-tenure and employment success among IPS-participants.

Thesis at a glance

Work and psychiatric disabilities. A person, environment, and occupation perspective on Individual Placement and Support.	
Study I	Support and process in Individual Placement and Support: A multiple case study.
Aim	To investigate the support and process in IPS from individual client, longitudinal, and Person, Environment, and Occupation (PEO)-match perspectives.
Results	The IPS-process concerned job-search support, job-matches (PEO-matches), and adjustment of the match by providing accommodations by on- and off-worksites support. All participants had disabilities in social interaction and handling symptoms/tolerating stress. Several accommodations were made for the same disabilities, mostly directed towards the social work environment. Previous work experience, disclosure, and not being in an acute phase of the illness appeared to be important for the support provided.
Conclusion	This study has visualized the support and process in the IPS and provided an analysis tool, the PEO-model, to detect disabilities and provide IPS. The organization of the support and methods of providing it to individuals may be important for job-tenure and employment success.
Study II	Reclaiming the worker role: Perceptions of people with mental illness participating in IPS.
Aim	To explore how IPS-participants working in a mainstream work setting perceive working and how their work environment impacted on their work performance.
Results	The participants strove to fit in at work by coping with environmental demands and adapting to their worker role. Work was perceived as having a positive impact on their daily life, although starting work was perceived as a challenge and the mental illness affected work performance. Own personal strategies were needed in order to cope. They perceived both supportive and demanding factors in their work environment, such as the employer's support and the social atmosphere among colleagues.
Conclusions	It is vital to focus on individual's own strategies for adapting to a worker role when designing the support, as well as to develop collaborative relationships with employers and to optimize the match between the individual and the demands of the work environment.
Study III	Cognitive functioning, communication and interaction skills, and work among people with serious mental illnesses.
Aim	To examine relationships between cognitive functioning, communication and interaction skills, and vocational outcomes among people with serious mental illnesses attending vocational services for 18 months.
Results	A significant difference was found between the group who had competitive employment and the group who had not, in immediate visual recall and in planning, reasoning and problem solving. Higher scores in the latter variable correlated with increased hours and weeks, and best explained the variation in having competitive employment or not. Higher scores in delayed verbal recall correlated with having a higher income. Communication and interaction skills also differed between the groups and were correlated with more hours and weeks in competitive employment, higher income, and higher scores in delayed verbal recall.
Conclusion	Cognitive functioning and communication and interaction skills may have a central role to play in vocational rehabilitation. How to compensate for or improve impairments in these areas should be attended to in order to promote sustainable worker roles among people with serious mental illnesses.
Study IV	Individual Placement and Support is the keyhole – Employer experiences of supporting persons with mental illness.
Aim	To explore employer experiences and views of participating in the IPS-network and taking IPS-service users into their workforce.
Results	The core category being socially committed was identified. Six stages illustrated the employer process, from taking on IPS-service users to supporting them at work: 1) IPS is the keyhole; 2) being ready to open the door; 3) making a job-offer; 4) removing barriers; 5) achieving the goal; and 6) pride mixed with negative feelings.
Conclusions	Collaborative relationships with employers must be based on trust and professionalism, and provide employers with adequate support.

Abbreviations and definitions of central concepts

ACIS	Assessment of Communication and Interaction Skills
BPRS	Brief Psychiatric Rating Scale
IPS	Individual Placement and Support
MATRICS	Measurement And Treatment Research to Improve Cognition in Schizophrenia
MOHO	Model of Human Occupation
PEO	Person-Environment-Occupation
RCT	Randomized Controlled Trial
SEFS	Supported Employment Fidelity Scale
SMI	Severe Mental Illness

Communication and interaction skills are observable goal-directed social behaviours and include “such things as gesturing, physically contacting others, speaking, engaging and collaborating with others, and asserting oneself” (Kielhofner, 2008, p.103).

Competitive employment is defined as a paid employment in a mainstream work setting (Bejerholm, Areberg, Hofgren, & Rinaldi, in press).

Disability or limitation is seen as related to the access and integration into the environment, and can be understood in relation to personal capacities, the occupation or activity performed, and the environment (Kielhofner, 2008; Law, Cooper, Stewart, Ringby, & Lett, 1996), in line with the International Classification of Functioning, Disability and Health (ICF) (World Health Organisation [WHO], 2001).

Disclosure refers to the IPS-participant telling the employer and/or co-workers about the illness or disability.

Executive functioning is referred to as being “linked to intentionality, purposefulness, and complex decision-making;” these include ... “identifying, initiating, and pursuing goals, planning strategies and sequencing steps of action, solving problems, monitoring progress and adjusting one’s behaviour to circumstances” (Kielhofner, 2009, p. 90). This thesis focuses on planning, reasoning and problem solving as being part of this complex construct.

Impairment is defined according to ICF where it is “problems in body function or structure as a significant deviation or loss” (p. 15), where the term body functions includes mental or psychological functions (WHO, 2001).

Internship, “praktikplats” in Swedish, is a labour market intervention in traditional or pre-vocational rehabilitation generally recommended to persons who have not been working for a longer period of time (Bejerholm, Larsson, & Hofgren, 2011).

IPS-network concerns the individually adapted network of persons for the IPS-participant, organized by the employment specialist, who together collaborate to support the participant in becoming as independent as possible in his or her worker role.

Limitation - see disability.

Mainstream work setting or real-world work setting is available to anyone and is in contrast to a sheltered setting.

Occupation is commonly referred to as work or profession. In this thesis, however, occupation is referred to as everyday meaningful activities that people do to occupy themselves (Kielhofner, 2008; Waghorn, Lloyd, & Clune, 2009), such as activities related to work, play, or daily living, within an environmental context (Kielhofner, 2008; Waghorn et al., 2009).

Off-worksitesupport refers to the support provided indirectly outside the workplace initiated and provided by the employment specialist in collaboration with other persons in the IPS-network such as friends, family, staff in the mental health care team and the welfare service.

On-worksitesupport refers to the support provided at the workplace initiated and provided by the employment specialist in collaboration with other persons in the IPS-network such as the employer, supervisor, and co-workers.

Planning, reasoning and problem solving - see executive functioning.

Recovery is characterized by a transactional process where the person's sense of self and identity transforms from being illness-dominated to becoming recovery-oriented, where the person has a meaningful life in the community, despite having on-going or recurrent psychiatric symptoms (Mancini, Hardiman, & Lawson, 2005; Shepherd, Boardman, & Slade, 2008).

Severe mental illness (SMI). A person is regarded as having a SMI if he or she has a psychosis or another mental illness where the psychiatric symptoms are severe, persist over time (>2 years), are functionally disabling and impact everyday life (Ruggeri, Leese, Thornicroft, Bisoffi, & Tansella, 2000).

Work is limited to competitive or paid work, and internship, which any citizen can get access to, and to activities that are integrated in mainstream community settings, in contrast to sheltered settings (Bejerholm, et al., in press).

Workplace accommodation is defined as: “a change in the workplace environment, or in the ways things are usually done, that make it possible for a person with a disability to perform a job” (Mancuso, 1995, p. 15). Accommodations do not only include physical changes in the work environment but also support provided in terms of changes in work routines, job-tasks, and to the social work environment (MacDonald-Wilson, Rogers, & Massaro, 2003; MacDonald-Wilson, Rogers, Massaro, Lyass, & Crean, 2002).

List of Publications

This thesis for the doctoral degree is based on the following studies referred to in the text by their Roman numerals:

- I. Lexén, A., Hofgren, C., & Bejerholm, U. (2013). Support and process in Individual Placement and Support: A multiple case study. *Work*, 44(4), 435-448.
- II. Lexén, A., Hofgren, C., & Bejerholm, U. (2013). Reclaiming the worker role: Perceptions of people with mental illness participating in IPS. *Scandinavian Journal of Occupational Therapy*, 20(1), 54-63.
- III. Lexén, A., Stenmark, R., Hofgren, C., & Bejerholm, U. Cognitive functioning, communication and interaction skills, and work among people with serious mental illnesses. Submitted.
- IV. Lexén, A., Emmelin, M., & Bejerholm, U. Individual Placement and Support is the keyhole – Employer experiences of supporting persons with mental illness. Submitted.

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Introduction

A core belief in occupational therapy is that engagement in meaningful occupations is essential for physical and mental health for the individual (Christiansen & Baum, 1997; Kielhofner, 2008; Waghorn, et al., 2009). Human occupation has been referred to as everyday meaningful activities that people do to occupy themselves, such as activities related to work, play, or daily living, within an environmental context (Kielhofner, 2008; Waghorn et al., 2009). This doctoral thesis focuses on doing work in mainstream or real-world settings among people with severe mental illness (SMI).

Setting the scene

The 'work first'-principle is currently in focus in the political debate in Sweden (Socialdepartementet, 2012). The goal is to create work opportunities for all Swedish citizens. The principle builds on the idea that work is desirable and that willingness to work should be rewarded. Despite the governments' intentions to include all citizens in work, unemployment rates are high among people in general and among people with SMI in particular (Organisation for Economic Co-operation and Development [OECD], 2013). People with SMI are acknowledged as a marginalized and stigmatized group excluded from normal life roles, such as the one of being a worker (Dickson & Taylor, 2012; Hansson & Björkman, 2005), and are in general considered not having the ability to be part of the regular workforce (Dickson & Taylor, 2012). Work is, however, a valued goal for many people with SMI, being as work is the primary means of connecting with the community, of creating social relationships, and of building a life (Boardman, Grove, Perkins, & Shepherd, 2003; Dunn, Wewiorski, & Rogers, 2008; Onken, Craig, Ridgeway, Ralph, & Cook, 2007). Unemployment and sick-leave generate great costs both for the individual and the society at present (Marwaha & Johnson, 2004; Marwaha et al., 2007). Mental illness in Sweden is the leading cause of labour market exclusion among the working population and costs the Swedish economy more than EUR 70 billion a year through lost productivity, social benefits, and health care (OECD, 2013). The Swedish society is now faced with the challenge of providing vocational rehabilitation services that also meet the needs of people with SMI (Socialstyrelsen, 2011).

IPS makes an entry into Sweden

As a part of the government's efforts to enable people with SMI to achieve their employment goals the National Board of Health and Welfare has been mandated to distribute SEK 35 billion a year from 2011 to 2013 to the municipalities for pilot projects with new vocational rehabilitation approaches (Socialdepartementet, 2011; Socialstyrelsen, 2013). This financial support has been provided to the municipalities in order to facilitate the testing of Individual Placement and Support (IPS) in their vocational rehabilitation services (Socialstyrelsen, 2013), being as the IPS-approach has been recommended as first priority in the national guidelines for psychosocial interventions for this group (Socialstyrelsen, 2011). Furthermore, a decision has recently been taken by the government to prioritize further efforts to improve the situation and contribute to the recovery of people with mental illness (Socialdepartementet, 2012).

A new occupational therapy research arena

Occupational therapists have long recognized the value of work for people with SMI and have traditionally been responsible for providing pre-vocational rehabilitation to include them in the workforce (Ross, 2008). Pre-vocational rehabilitation in Sweden has primarily been provided by the mental health care services and the municipalities. Research has therefore been conducted in relation to these pre-vocational rehabilitation services (Lindström, 2007). As IPS now makes its entry into Sweden there is a need to investigate what happens at the workplace when people with SMI enter the labour market. Hitherto, due to extensive unemployment rates in this group, working life research is rare. Furthermore, far from everyone who enters IPS benefits fully from the intervention and achieves employment success (Drake & Bond, 2011) despite national evidence that demonstrates the effectiveness of IPS in securing jobs as compared to traditional or pre-vocational rehabilitation services (Bond, Drake, & Becker, 2012). We still do not know why the intervention does not work for all IPS-participants. Research in the field has primarily focused on vocational and health-related outcomes on a group level and few studies have been conducted on an individual level, which may provide answers to this question. The way in which psychiatric disability affects work has not been clarified, and neither has the support and process in IPS been understood and described. Moreover, more knowledge is needed regarding the IPS-participants' perceptions of their worker role and work environment, and the employers' experiences and views.

Background

The value of work - What you do is who you are!

Work in occupational therapy theory is generally defined as: “activities (both paid and unpaid) that provide services or commodities to others such as ideas, knowledge, help, information sharing, entertainment, utilitarian and artistic objects, and protection” (Kielhofner, 2008, p.6). In this thesis, however, work is limited to competitive or paid work, and internship, which any citizen can get access to and to activities that are integrated in mainstream community settings, in contrast to sheltered settings.

To work and earn a living is highly valued in western societies (Kielhofner, 2008). We are expected to learn and to contribute to the common good by working (Christiansen & Townsend, 2011b; Kielhofner, 2008). Paid work is motivating, since it provides us with necessary income to maintain a standard of living (Kielhofner, 2008). Work also provides a daily structure and imposes a collective time-structure to the day and week. It offers opportunities for the individual to be able to feel that he/she is competent, to feel satisfaction by doing something useful, and to feel involvement in and a sense of being part of a larger whole (Christiansen & Baum, 2011b; Kielhofner, 2008). The most valued aspects of work are, however, that it provides us with various social contacts and relationships (Christiansen & Townsend, 2011a). Accordingly, the worker role often becomes an important facet of our adult lives (Kielhofner, 2008) and is closely linked to our adult identity (Brown et al., 2001; Christiansen & Townsend, 2011b; Kielhofner, 2008; Kirsh, Cockburn, & Gewurtz, 2005). In this sense, work significantly influences social acceptance and status (Whiteford, 2011). As the heading implies, ‘What you do is who you are’, the perceptions of others are often influenced by the work title a person has (Kielhofner, 2008).

Work at the heart of recovery

Work is at the heart of recovery for people with SMI since it gives them opportunities to participate in the community as active citizens (Boardman et al., 2003; Bond, Salyers, Rollins, Rapp, & Zippel, 2004). In this thesis, a person is regarded as having a SMI if he or she has a psychosis or another mental illness where the psychiatric

symptoms are severe, persist over time (>2 years), are functionally disabling and impact everyday life (Ruggeri et al., 2000). For people with SMI, being in recovery is a multidimensional and subjective process (Mancini et al., 2005; Schön, Denhov, & Topor, 2009). It is characterized by a transactional process where the person's sense of self and identity transforms from being illness-dominated to becoming recovery-oriented, where he or she has a meaningful life in the community, despite having ongoing or recurrent psychiatric symptoms (Mancini et al., 2005; Shepherd et al., 2008). Accordingly, there is a shift from identifying with the patient or diagnosis role to identifying with important life roles. When a person is in a recovery process, he or she is likely to develop meaningful interpersonal relationships, to engage in work, to start creating a meaningful leisure time, and to strive towards becoming socially included in the community (Noordsy et al., 2002). In this process, the person typically starts to feel hope regarding the future, takes personal responsibility for his or her own health and well-being, and gets on with life beyond the illness. However, the recovery process is not linear; it is instead highly personal and consists of periods of growth as well as periods of setbacks (Bond et al., 2004). In relation to recovery, if a person wants to work, it helps him or her to move "beyond the catastrophic effects of the psychiatric disability" (Anthony, 2000, p.159). Work can become a source of identity beyond the illness (Mancini et al., 2005), and can contribute to the development of meaning and purpose in a person's life (Kirsh et al., 2009). Work also entail that people with SMI can develop their skills and relationships with others after a period of illness, and divert symptoms (Dunn et al., 2008; Koletsi et al., 2009; Provencher, Gregg, Mead, & Mueser, 2002). Finally, work has been shown to enhance self-empowerment, self-actualization (Leufstadius, Eklund, & Erlandsson, 2009; Provencher et al., 2002), self-esteem (Dunn et al., 2008; Koletsi et al., 2009), and to reduce boredom and isolation among people with SMI (Koletsi et al., 2009).

Work among people with SMI

Despite work being a valued goal for many persons with SMI, the unemployment rate is high, and long-term unemployment is a major problem (Crowther, Marshall, Bond, & Huxley, 2001; Provencher et al., 2002). In 2012, people with mental illness in Sweden had the lowest employment rate as compared with the general population and other groups of persons with disabilities (Socialdepartementet, 2012). Furthermore, the target group in the present thesis, people with SMI, exhibits an even lower employment rate than people with less severe mental conditions. This situation may be due to the onset of the SMI often causing an early disruption of their vocational or educational career (OECD, 2013). In a Swedish study that involved 181 persons with a SMI, it was shown that only 8.7 % had paid work (Nordström, Skarsater, Björkman, & Wijk, 2009). Nine out of ten participants relied on sickness benefits for their income, as compared to one out of ten in the general population.

Accordingly, people with SMI are clearly affected by this unemployment situation. They have shown to have difficulties in maintaining a daily rhythm and have a tendency for reversing day and night. Their time is mostly spent alone, at home, and quiet activities performed with low levels of engagement appear to dominate the activity repertoire (Bejerholm & Eklund, 2006; Eklund, Leufstadius, & Bejerholm, 2009). Nevertheless, when people with SMI are asked whether they would like to work, the majority say yes (Secker, Grove, & Seeböhm, 2001). It is thus important for occupational therapists and other professionals to support the recovery goals of those with SMI, including wanting to work.

Psychiatric disability and SMI

In the present thesis, disability is understood in relation to a person, environment, and occupation perspective. Disability can in this sense be comprehended in relation to the access and integration into the environment, and can depend on personal capacities, environmental characteristics, and the kind of activity or occupation performed (Kielhofner, 2008; Law et al., 1996). Disability may thus occur in relation to personal capacities, the constituents of the environment, and what the person does. This definition of disability is in keeping with the International Classification of Functioning, Disability and Health (ICF) (WHO, 2001). Functioning and disability in ICF is viewed at two interacting levels; body functions and structures, and activities and participation, and is described as the outcome of the interaction between a person's health condition and the contextual factors in which the person finds him/herself. ICF is based on a social theoretical model of disability, in contrast to the medical model where disability is primarily viewed as being caused by the disease. The environmental factors in ICF are described as having both a facilitating and hindering impact on all components of functioning and disability. Consequently, in order to support persons with disabilities to participate more fully in society, ICF suggests that social actions are required to adjust or accommodate the environment. Disability is thus mainly viewed as a political issue. The concept of impairment used in this thesis is also derived from ICF's classification and is defined as "problems in body function or structure as a significant deviation or loss" (p. 15), where the term body functions includes mental or psychological functions.

With regard to people with SMI, Ruggeri et al. (2000) state that psychiatric disability occurs as a consequence of the mental illness and regards the person's functional status and the ability to manage everyday life. The most common diagnosis associated with having a SMI is schizophrenia (Bond & Campbell, 2008). Schizophrenia is characterized by positive symptoms, e.g. delusions and hallucinations, negative symptoms, e.g. flat affects, and lack of ability to begin and sustain planned activities, and cognitive impairments, e.g. poor executive functioning and memory (Mueser & McGurk, 2004). Negative symptoms have been described as

more pervasive and fluctuate less over time than positive symptoms, and have shown to be strongly related to poorer psychosocial functioning (Bejerholm & Eklund, 2007a; Mueser & McGurk, 2004). In order to understand and locate the whereabouts of the psychiatric disability in relation to the interactive approach of the person, the environment, and the occupation, two theoretical models are used in the present thesis, the Person-Environment-Occupation (PEO)-model (Law et al., 1996) and the Model of Human Occupation (MOHO) (Kielhofner, 2008). Both models have been developed within the field of occupational therapy to help guide practice and research. They are based on the assumption that the human is part of an open system constantly interacting with the environment through performing occupations.

Person, environment, and occupation perspective

According to the PEO-model (Law et al., 1996), the person, his or her environments and occupations dynamically interact over time. There is an inverse relationship between these dimensions and they are viewed as equally important. The *person* is defined as “a unique being who assumes a variety of roles simultaneously” (p.15) and is seen “holistically as a composite of mind, body, and spiritual qualities” (p.16). The person’s abilities, values and beliefs, personality, background etc., affect the way he or she views the environment. These dimensions of the person shape in turn his or her self-perception in relation to the occupations being performed and the surrounding environment. The *environment* is thus assumed to be non-static and to have both an enabling and constraining effect on occupational performance, as emphasized in the ICF (WHO, 2001). In addition, in the PEO-model (Law et al., 1996), the environment is assumed to be more retentive to change than the person. *Occupation* is viewed as essential for living and is defined as the activities and tasks we engage in to meet our intrinsic needs for self-maintenance, expression, and fulfilment.

In the PEO-model (Law, et al., 1996) the person, the environment, and the occupation are represented by three inter-related circles or spheres. The degree of overlap between the spheres indicates to what extent the dimensions fit together or match. This overlap represents occupational performance (Figure 1). According to the model, a good match between the three spheres is essential for an optimal occupational performance, whereas a mismatch may cause disabilities in occupational performance. A disability may thus, according to this model, depend on personal capacities, environmental components, and the occupations or activities performed, and may exist in relation to each of these three spheres.

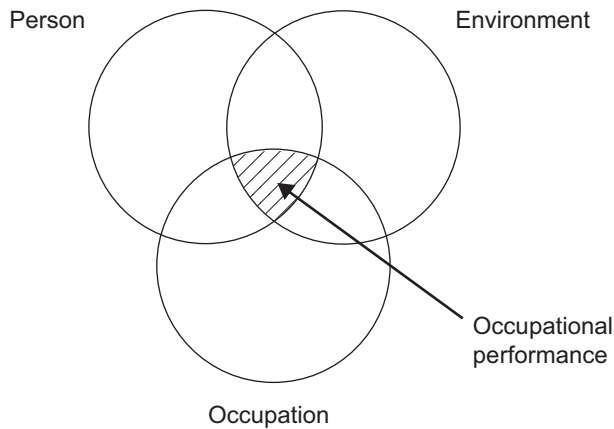


Figure 1. The PEO-model, illustrated with inspiration from Law et al. (1996).

Model of Human Occupation (MOHO)

The concept of disability in MOHO concurs with that in the ICF and the PEO-model and is related to the access and integration in to the environment (Kielhofner, 2008). Similarly occupational performance or behaviour is viewed as the result of the interaction between the person, his or her occupation, and the environment in which the occupation is being performed. In MOHO, the person is defined as a human system where the parts together constitute a logical whole with a purpose of function. The human system has three sub-systems: the volitional subsystem, the habituation subsystem, and the mind-brain-body performance subsystem, i.e. the individual's physical, cognitive, and communication and interaction skills. According to the model, the environment and the human system constantly interact and shape occupational performance. What is of particular interest with regard to MOHO in this thesis is that it emphasizes the strong impact of environmental aspects on a person's occupational performance. In MOHO social groups such as family, friends, employer and co-workers, as well as objects, physical spaces, activities/occupations, and the cultural, political, and economic context are intertwined with the environment and strongly influence our performance (Figure 2). According to MOHO, most persons operate in a variety of environmental contexts, where the workplace is one such context.

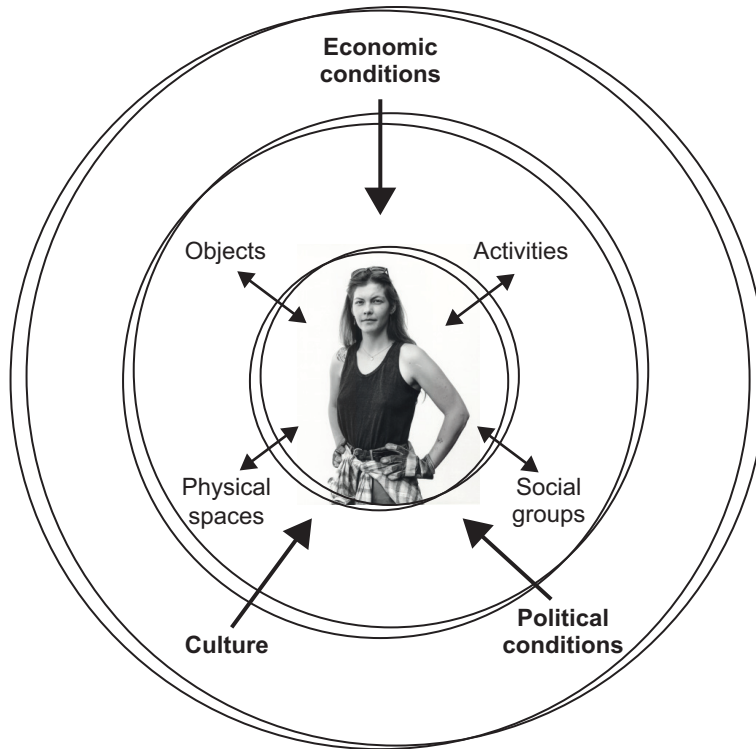


Figure 2. The environments impact on occupational performance, illustrated with inspiration from Kielhofner (2008).

Work environment

In the work environment, a person encounters both physical and social factors that provide expectations and opportunities, and impact on the occupational performance at work, i.e. work performance (Kielhofner, 2008). For example, resources in the work environment, such as instructions, guidance, and support from the employer and co-workers, can facilitate the performance, and sustain and increase motivation and participation. On the other hand, if the person experiences low expectations from the employer and co-workers it may affect the individual's work performance and motivation negatively. Social norms at the workplace and work requirements also have an impact. Furthermore, according to the MOHO, and the PEO-model (Law et al., 1996), the worker is most productive and satisfied when there is a match between the features of the work environment, and his or her needs and skills as a worker. The way the work environment impacts on the person is also emphasized as varying according to his or her interests, values, habits, roles, and performance capacities. The same work environment may thus have a different impact on different workers

(Kielhofner, 2008). From this perspective, it thus appears vital to address the physical and social work environment in order to be able to understand and unravel the experience of disabilities in work performance among people with SMI. It can further be emphasized that the environment focus in the ICF, the PEO-model, and the MOHO is necessary for professionals in vocational rehabilitation to have in order to perform adequate accommodations and support in the work environment, and thus reduce disability and facilitate work performance.

Two vocational rehabilitation approaches

The overarching goal of vocational rehabilitation is to help people with disabilities to reach their working goals. Two main approaches to vocational rehabilitation have emerged to guide professionals, namely the *train-then-place approach* or pre-vocational rehabilitation, which emanates from a medical theoretical paradigm, and the *place-then-train approach*, which is related to the recovery perspective and promotes the concept of the person learning while he or she is at work (Corrigan & McCracken, 2005).

Train-then-place

According to Corrigan and McCracken (2005), the *train-then-place approach* to vocational rehabilitation implies a gradual process of training and assessment followed by placement in work. It is based on the assumption that people with SMI have a biological disorder that causes deficits that hinder them from “fitting into the kind of work and independent living situations where life goals may be achieved” (p.31). In accordance with this approach, people with SMI need to participate in preparatory services to learn how to cope with the demands at work. The person is therefore trained on a range of skills in several training steps, from the safest and most restrictive environment to a work-like setting. The approach also assumes that symptoms may exacerbate if the person enters the labour market without having passed these steps. According to Bejerholm et al. (2011), this more traditional pre-vocational rehabilitation approach is aligned with the welfare system and guided by laws and regulations in Sweden. Different parts of the pre-vocational rehabilitation are divided between governmental organizations; the mental health care services, the municipalities, the National Social Insurance Agency, and the Public Employment Service. The person has to train and cope with his or her illness and symptoms before any other actions are made with regard to the vocational rehabilitation. When the person is cared for and considered to be well enough, the National Social Insurance Agency becomes a major actor in the rehabilitation process. As part of the rehabilitation, many people with SMI are referred to unspecified meaningful daily

activities or training in sheltered settings within the municipalities (Areberg & Bejerholm, 2013; Bejerholm et al., 2011). Furthermore, according to Bejerholm and colleagues (2011), if a person wants to take the step towards work, he or she has to be subjected to work-capacity assessments and work-readiness evaluations. The last step of the rehabilitation route generally includes support from the Public Employment Service, and entails the evaluation of work-capacity against a real work situation, an internship placement. The service can also offer supported employment and provide the employer with subsidised manpower if the psychiatric disability impacts on work performance. Few people with SMI, however, attain paid work in mainstream settings through this train-then-place approach to vocational rehabilitation.

Place-then-train

The *place-then-train approach* represents a paradigm shift in the theory and practice of vocational rehabilitation (Cocks & Boaden, 2009). According to Corrigan and McCracken (2005), a person's desire for independence and the need to provide support based on the person's own choice is recognized in this approach. The person is rapidly placed into work in mainstream work settings, based on the assumption that people with SMI can work if provided with the right support, and in contrast to sheltered settings, without work capacity assessments and pre-vocational training. The person receives support and training at work instead. As a consequence of supporting persons in their efforts to find employment, the number of days they spend in hospital and their symptom levels are reduced. A problem at work does not thus solely rest on the person who has a mental illness, but also on society. All four organizations in the Swedish welfare system thus need to become partners in helping people with SMI regain a meaningful life, despite the mental illness and psychiatric disability. The most established vocational rehabilitation service that practices the place-then-train approach is the evidence-based supported employment for people with SMI, the Individual Placement and Support (IPS).

Individual Placement and Support (IPS)

IPS is a supported employment and evidence-based practice (EBP) that meets the needs of people with SMI who want to work (Drake et al., 1994). Supported employment was originally developed to assist persons with developmental disabilities to gain and maintain employment (Wehman, 1988). According to IPS, anyone, even those with SMI, is capable of working if the person is provided with the right support (Rinaldi et al., 2008).

The IPS-principles and fidelity

The IPS-service is performed and coordinated by a key person who is called an employment specialist (Bond & Campbell, 2008). The employment specialist has an intermediate and supportive role in relation to both client and others, and therefore becomes the most visible part of the IPS-service. Key components of an employment specialist's role have been described as including skills in vocational rehabilitation, knowledge of mental health problems, and of how to secure jobs on the open market (Rinaldi et al., 2008).

The IPS-principles

The employment specialist is guided by eight empirically derived principles (Bond & Campbell, 2008; Rinaldi et al., 2008):

- (1) *Eligibility based on the client's willingness to work.* Anyone with a psychiatric disability who is interested in competitive employment is eligible for admission. IPS promotes a zero exclusion policy, in which a client cannot be excluded based on the nature of the mental health problems, readiness, diagnosis, symptoms, severity of impairments, and the like.
- (2) *Competitive employment is the goal,* is based on that most people with SMI want to obtain competitive employment. Work is viewed as a mean to reduce social marginalisation and stigma, and to increase the client's self-esteem and confidence.
- (3) *A rapid job search* approach is used to increase and maintain the client's work motivation. This principle reinforces that the client does not have to be assessed as being "work ready" before gaining competitive employment.
- (4) *The service is based on the client's preferences and choices,* rather than providers' judgments. Placement in meaningful self-chosen work setting is thus the goal. Research has shown that clients who get work according to their own preferences are more likely to stay on the job.
- (5) *Ongoing time-unlimited support,* such as accommodating disability and giving need-oriented support. IPS aims at helping the client to overcome his or her psychiatric disability by providing support with job applications and interviews, creating a good match between personal abilities and preferences, and a job, and providing time unlimited individually adapted accommodations and support in the work situation. According to Shankar (2005) the support is seen as a key feature of IPS.
- (6) *Integration of the IPS-vocational rehabilitation plan with the mental health care team.* IPS is closely integrated with the mental health care team. Hence, the employment specialist collaborates with psychiatrists, psychologists, nurses, social workers, occupational therapists, and other providers, to give an optimal support to help the IPS-participant to obtain and keep a job.

- (7) *Benefit counselling at an early stage* is provided to support the participant to make an informed choice when it comes to employment.
- (8) *Systematic job recruitment and development of relationships with employers.* The employment specialist systematically builds employer networks based on the client's preferences. This principle was recently added (Bejerholm, 2012; Bond et al., 2012; Dartmouth IPS Supported Employment Centre, 2013), since employers have been found to be a critical part of the IPS-service in relation to the workplace (Glover & Frounfelker, 2011).

The extent to which the IPS can be translated into practice, i.e. the extent the employment specialists are actually able to work in accordance with the IPS-principles, can be determined by assessment with the Supported Employment Fidelity Scale (SEFS) (Bejerholm, 2012; Bond & Campbell, 2008; Socialstyrelsen, 2012b). In practice, the SEFS-assessment helps to identify which part of the IPS-service that needs improvement. It is widely and regularly used, particularly since research has shown that a higher fidelity rate corresponds to a higher employment rate among people with SMI (Becker, Swanson, Bond, & Merrens, 2008; Bond, Peterson, Becker, & Drake, 2012; Cocks & Boaden, 2009; Socialstyrelsen, 2012b).

The IPS-service

According to Bejerholm (2012), when a person with SMI expresses an interest in working and becomes enrolled in IPS the focus is on building a working alliance. The first step entails the employment specialist creating a mutual and trustworthy relationship in which the client feels confident enough to talk about his or her work preferences. The goal in this passage is to convey hope, and support the client in taking the "driver's seat" instead of the "passenger seat" in the vocational rehabilitation. The employment specialist employs an empowerment approach to support the client's own control, to move beyond the illness.

The second step concerns a more structured dialogue where the client and the employment specialist talk about the client's abilities, strengths, and vocational goals, which are written down in an IPS-vocational profile (Bejerholm, 2012; Rinaldi et al., 2008). This is used and updated throughout the rehabilitation process, and is often complemented with information from previous employers, friends, family members, professionals from the mental health care team and others (Bejerholm, 2012).

The third step includes according to Bejerholm (2012) and Rinaldi et al. (2008) the formulation of an IPS-vocational plan. It is based on what is written in the vocational profile, and targets, in detail, how the client will reach his or her working goal, what steps need to be taken, and who needs to be involved in the support process. Different workplaces are contacted and visited as soon as the participants express interest in doing so. In this stage, the purpose is to look for different jobs that match the abilities and preferences of the client. If the client is willing to disclose the

illness or psychiatric disabilities to the presumptive employers, the IPS-process also involves a meeting together with the employer to discuss the client's abilities and work requirements. The IPS-vocational plan is also regularly followed-up and updated.

In the next step, when the client starts to work, he or she is provided with support at the workplace if necessary, which is organized and initiated by the employment specialist (Bond, 2004). The level of support is often gradually reduced until the challenge in the work environment matches the skill and ability of the client (Rinaldi et al., 2008). The support provided is unique for each client and is entirely based on his or her preferences and choice (Bejerholm, 2012). The goal is to support the client in becoming as independent as possible in his or her worker role (Dartmouth IPS Supported Employment Centre, 2013). Little is known so far, however, of what the support and process in IPS actually consists of, and how the IPS delivery is organized around the client.

IPS effectiveness - vocational and non-vocational

IPS has been empirically validated in at least 15 randomised controlled trials (RCT) (Bond et al., 2012; Crowther, Marshall, Bond, & Huxley, 2001). In Sweden (Bejerholm et al., in press), Europe (Burns, White, & Catty, 2007), and in the US, in particular (Bond et al., 2012), IPS has shown to be more effective than any forms of traditional pre-vocational rehabilitation (train-then-place) in supporting IPS-participants to gain and keep employment. IPS has also been shown to change the IPS-participants' time-use, provide better empowerment, work motivation, and quality of life as compared to traditional pre-vocational rehabilitation (Areberg & Bejerholm, 2013). In addition, vocational outcomes, such as gaining work, have shown to be associated with better clinical and social functioning (Burns et al., 2009). Based on this research, IPS has been suggested by Bond and colleagues (2012) as being effective across a range of cultures and policy environments. These authors conclude that, despite the significantly higher overall employment rates in US studies, in comparison to non-US studies (62% versus 47%), IPS works well in other countries too, as long as the services achieve a high level of fidelity to the IPS-principles. The welfare systems and the labour and disability policies in several European countries have shown to reduce the level of IPS-fidelity and the effectiveness of IPS. For example, in a Swedish implementation study (Bejerholm et al., 2011) it was shown that the principles, *Competitive employment is the goal*, *A rapid job search*, and *The service is based on the client's preferences and choice* were compromised in the Swedish welfare context. As a result many IPS-participants had to seek internship placements before pursuing towards their individual goals of achieving competitive employment. As described previously in the thesis, internship placements are generally recommended as the pre-determined route of vocational rehabilitation in the Swedish pre-vocational rehabilitation system. Furthermore, a

culture of free labour also constituted an implementation barrier, being as many employers expected an internship placement before considering hiring the persons (Bejerholm et al., 2011; Gustafsson, Prieto Peralta, & Danemark, 2013). Many IPS-participants also feared losing their benefits if they started to work in competitive employment (Bejerholm et al., 2011; Hasson, Andersson, & Bejerholm, 2011). Despite these implementation barriers, the recently conducted Swedish RCT-trial confirmed the effectiveness of IPS in a Swedish context, as compared to the traditional pre-vocational rehabilitation (46% versus 11%) (Bejerholm et al., in press). The difference between the groups was larger than for any of the European countries, which indicates that most people with SMI who participate in Swedish traditional services remain in pre-vocational or sheltered settings and do not achieve employment. However, despite the success of IPS, about half of the group generally do not fully benefit from the service, as reflected in the findings of the RCTs (Bond et al., 2012; Drake & Bond, 2011). It could be said that the participants in these trials have not been followed up for a sufficiently long period of time, and that it is common that the participants try out several jobs to determine their own choice and potential (Drake & Bond, 2011). They may also have difficulties with getting employed or keeping their jobs once they have started to work (Drake & Bond, 2011; Mak, Tsang, & Cheung, 2006; Mueser, Becker, & Wolfe, 2001). The general picture is that not all IPS-participants develop a sustainable working career, and those who become consistent workers do not often work full-time (Bond & Campbell, 2008). Research has shown that many people with SMI are hindered from their endeavours to gain and keep their employment due to their cognitive and social impairments (Kitchen, Rofail, Heron, & Sacco, 2012; Tan, 2009). As a consequence, research that focuses on the psychiatric disability that people with SMI have in relation to work is therefore warranted. Such research can help to develop an understanding of how to better support people with SMI in vocational rehabilitation. It is further vital to gain knowledge about which type of disabilities the IPS-participants have and experience, and about which work accommodations and other supports are provided in IPS. It is further vital to study how the participants themselves perceive their worker role and work environment. As indicated by the fact that the IPS-principle *Systematic job recruitment and development of relationships with employers* was recently added, the employers' attitude towards hiring a person with SMI, and engagement in the support provided in IPS are critical aspects that need to be addressed in this line of research.

Research on psychiatric disabilities and work

There is an emerging body of research that focuses on the actual work situation that people with psychiatric disabilities have when participating in supported employment services (MacDonald-Wilson et al., 2002, 2003; Shankar, 2005). This research has not specifically been performed in relation to IPS per se. However, the two

quantitative studies conducted by MacDonald-Wilson and colleagues, showed that the participants had cognitive, social, and emotional disabilities when they worked. In the first longitudinal and descriptive study, the most frequent disabilities reported were interacting with others (93%), learning work tasks (86%), and maintaining work stamina (45%). In the second study, cognitive disabilities, such as memorising and learning new work tasks and work routines, paying attention to work tasks, and problem-solving related to work tasks, were found to be the most prevalent disability (70%), followed by social (41%) and emotional disabilities (26%). These studies have provided valuable information about people with SMI in supported employment services on a group level. It is thus also vital to gain knowledge about what type of disabilities participants in IPS-services have and experience on an individual level, and which work accommodations are provided in IPS. Furthermore, it can also be assumed that it is important to study the participants' disabilities over time in a longitudinal perspective. It can thus be possible to gain an understanding of the disabilities over time.

Cognitive functioning and work

Impairments in cognitive functioning among people with schizophrenia are well documented and have been described as a core feature of the illness (Bowie & Harvey, 2006; Nuechterlein et al., 2004). The National Institute of Mental Health's Measurement and Treatment Research to Improve Cognition in Schizophrenia (MATRICS) has identified seven separate areas of cognitive impairments related to the illness (Nuechterlein et al., 2004): (1) speed of processing, (2) attention/vigilance, (3) working memory, (4) verbal learning and memory, (5) visual learning and memory, (6) reasoning and problem solving, (7) and social cognition. In a review on cognitive deficits and functional outcome in schizophrenia (Bowie & Harvey, 2006), cognitive impairments were found to be moderate to severe across several domains, including working memory, verbal learning and memory, and executive functions, and was found to be related to functioning in everyday life in general, including the ability to work. In other studies related to supported employment (McGurk Mueser, Harvey, LaPuglia, & Marder, 2003; McGurk & Mueser, 2006a), impairments in higher order cognitive functions, such as verbal learning and memory, and executive functions, have been found to predict vocational outcomes, such as income and hours worked and have shown to be related to more intense vocational services. According to Kielhofner (2009) executive functioning is "linked to intentionality, purposefulness, and complex decision-making" these include ... "identifying, initiating, and pursuing goals, planning strategies and sequencing steps of action, solving problems, monitoring progress and adjusting one's behaviour to circumstances" (p. 90). The present thesis focuses on the planning, reasoning and problem solving part of this complex construct of executive functioning, which is in line with MATRICS (Nuechterlein et al., 2004).

Supported employment services have to some extent been found to compensate for the symptoms and cognitive impairments people with SMI have in work performance (McGurk & Mueser, 2003, 2004). However, a review of the quantitative research within the field suggests that these services may not fully compensate for impairments in higher order cognitive functioning of learning and memory, and executive functioning (McGurk & Mueser, 2004). Additionally, it was suggested that problem solving skills would be expected to be related to vocational outcomes since work performance can be anticipated to rely on this cognitive domain. There is a need to further elaborate on the relationships between cognitive functioning and work among people with SMI in vocational rehabilitation (McGurk & Mueser, 2003). Especially since the only two studies, with the same focus as this thesis (McGurk et al., 2003; McGurk & Mueser, 2006a), including cognitive testing and vocational outcomes of people with SMI attending vocational rehabilitation services, included only 30 participants, the majority of whom were male. This research area thus appears to be important in order to be able to understand what area of cognitive impairment may be decisive for getting a job or not. Such research may form the basis of how to better individualize and provide successful work support, such as providing for a better job-person match, and/or training or compensatory opportunities at the workplace (McGurk & Mueser, 2004; Tan, 2009). Moreover, as previously presented, it is not only the cognitive disabilities that are frequently reported, but also the social disabilities (MacDonald-Wilson et al. 2002, 2003). It thus appear essential to also investigate whether there is a relationship between the way that people with SMI socially interact with others at work, and their cognitive functioning and vocational outcomes.

Communication and interaction skills and work

People with SMI have in previous supported employment research reported difficulties coping with social situations at work (MacDonald-Wilson et al., 2002). This may be due to people with SMI often misinterpreting social cues and having difficulties with interacting effectively with others (Kurzban, Davis, & Brekke, 2010). *Receiving* and *processing* are often described as the two first stages of a social interaction (Dickinson, Bellack, & Gold, 2007) that are applied to recognize, understand, and process the social interaction, and are usually referred to as social cognition (Dickinson, et al., 2007; Harvey & Penn, 2010). Impairments in this area are well documented among people with schizophrenia and have been found to be more strongly related to worse functioning in everyday life in comparison to impairments in other cognitive domains (Fett et al., 2011). Social cognition has also been found to solely contribute to functioning in everyday life among people with SMI, although it has been shown to be related to cognitive functions, such as memory and attention (Couture, Penn, & Roberts, 2006; Fett et al., 2011; Harvey & Penn, 2010; Kurzban et al., 2010). The third stage in a social interaction, *sending* or

communication and interaction skills, are less well documented and may be an equally important impediment to social functioning (Dickinson et al., 2007). The possibilities for assessing these skills are, however, more limited. In the study by Dickinson and colleagues (2007), disabilities in communication skills, as assessed by a role-play-based social skills test, were found to be related to verbal learning, memory and processing speed, and to predict vocational outcomes. No studies have, however, been conducted to explore communication and interaction skills, as observed in mainstream work settings, and their relationships to cognitive functioning and vocational outcomes. Communication and interaction skills are in this thesis defined in accordance with MOHO as observable goal-directed social behaviours and include “such things as gesturing, physically contacting others, speaking, engaging and collaborating with others, and asserting oneself” (Kielhofner, 2008, p.103).

Work accommodations and support in IPS

Individually tailored accommodations and support at work to compensate for social and cognitive impairments have shown to increase job-tenure among IPS-participants (Mak et al., 2006), and is seen as essential for employment success (Banks, Charleston, Grossi, & Mank, 2001). A workplace accommodation is in this thesis defined as: “a change in the workplace environment, or in the ways things are usually done, that make it possible for a person with a disability to perform a job” (Mancuso, 1995, p. 15). Accommodations do not only include physical changes in the work environment but also support provided in terms of changes in work routines, work tasks, and to the social work environment (MacDonald-Wilson et al., 2002, 2003). The support provided to compensate for disabilities in work performance has often been shown to involve human assistance such as support from an employment specialist (MacDonald-Wilson et al., 2002, 2003; McGurk & Mueser, 2006b). In addition to human assistance, other common accommodations have been found to be a help in the employment procedure, a flexible schedule, extended training in how to perform work tasks, and/or modified work tasks (MacDonald-Wilson et al., 2002). Although some studies have provided information on work accommodations usually provided within supported employment services on a group level (MacDonald-Wilson et al., 2002, 2003), no study has been conducted to describe the support and process within IPS from a client perspective and over a period of time. The support provided in IPS may be important to consider in relation to job-tenure and employment success and needs to be further investigated (Shankar, 2005).

Job-person match

An appropriate match between the IPS-participant and the job has been stressed in previous IPS-research in order to promote satisfaction with the job and a longer job-tenure (Johnson et al., 2009; Kukla & Bond, 2012; Mak et al., 2006; Mueser et al., 2001). On the contrary, a poor match has shown to be difficult to compensate by accommodations (McGurk & Mueser, 2004; Shankar, 2005). The job-person match in IPS involves the match between the job and the person's preferences (Mueser et al., 2001), strengths (Bond, 2004), coping strategies, stressors, illness-related difficulties, and previous work history (Shankar, 2005). It has, however, also been suggested that a job-person match should include an analysis of the work environment and its characteristics to determine whether or not it accommodates the IPS-participants' disabilities (Shankar, 2005). No IPS-research has as yet explored the job-person match in relation the work environment characteristics and the work activities performed. Moreover, up until now, no study has described the job-person match over time. The PEO-model mentioned may be used as a tool for visualizing the whereabouts of the disability in relation to the person, the environment, and the occupation in clinical IPS-practice.

IPS-participants' experiences

A few qualitative studies have been conducted that have focused on IPS-participants' views on participating in IPS and the hindering and facilitating factors for obtaining and maintaining employment (Areberg, Björkman, & Bejerholm, 2012; Johnson et al., 2009; Koletsi et al., 2009; Liu, Hollis, Warren, & Williamson, 2007). In the same research context as this thesis (Areberg, et al., 2012), the participants described IPS as a positive experience that gave hope and meaning. The employment specialists' individual and flexible support was described as helpful, as well as the psychiatrist and mental health workers, and the employer's attitude and engagement. In the study by Koletski et al. (2009), the participants described getting work by means of the IPS was associated with financial stability, better self-esteem, improved social life, and reduced symptoms. They also felt less bored and isolated, and described reduced feelings of stress. In the study by Johnsson et al. (2009), the participants perceived the employment specialist support valuable for staying focused and motivated, and to increase their self-confidence. The employment specialist's practical assistance in the job-seeking process was also perceived as valuable. In the study by Liu and colleagues (2007) the importance of the working relationship with the employment specialist was also highlighted, as well as the practical support at the workplace. The participants also found the support provided in IPS as helpful in removing barriers to job-seeking. Additionally, they experienced an improved well-being, being as

somebody believed in them as working individuals. This contributed to feelings of hope to achieve employment, and made them feel worthy and productive.

When it comes to hindering factors for obtaining and maintaining employment the participants perceived the quality of the support as essential (Areberg et al., 2012; Johnson et al., 2009; Koletski et al., 2009). In the study by Koletski et al. (2009), the participants described that they did not get unlimited on-going support, despite that time-unlimited support is a key feature in IPS. The participants in the study by Johnsson and colleagues (2009) highlighted the importance of their abilities and previous work experiences being appropriately matched to the jobs. In the study by Areberg and colleagues (2012) a negative employer attitude was experienced as a hindering factor and the participants expressed the importance of support provided from others than the employment specialist. In the study by Liu and colleagues (2007) the participants did not always see support as being beneficial as they feared that the support would be seen negatively by the employer. As emphasised earlier on, an increased knowledge is needed of the IPS-participants' own perceptions of their work environments and how these impact on their work performance.

Employers' attitude and engagement

Employers' attitude and engagement, as described above, has been described by IPS-participants as constituting both a hinder and a facilitator for their work performance (Areberg, et al., 2012). Employers have also shown to have an important role in negotiating and providing workplace accommodations (MacDonald-Wilson et al., 2002, 2003). Despite the fact that the IPS-principle *Systematic job recruitment and development of relationships with employers* has been described as being critical for a successful IPS-intervention (Becker et al., 2011; Glover & Frounfelker, 2011) no research as yet exists that focuses employer experiences and views of being part of the IPS-network and taking on IPS-service users into their workforce.

Understanding and supportive employers are, according to general disability research, key enablers of work integration for people with SMI (Kirsh, 2000). Employers have shown to vary in their openness to hiring people with disabilities (Gilbride, Stensrud, Vandergoot, & Golden, 2003; Ju, Roberts, & Zhang, 2013). According to Ju et al. (2013) and Kirsh et al. (2009) many employers seem extra reluctant and uninformed when it comes to workers with SMI. They have shown to be uncertain regarding the impact of the mental illness on the workplace and the person's ability to perform work tasks (Kirsh et al., 2009). They have also shown less understanding or misconceptions about necessary accommodations. Nevertheless, people with SMI have shown to be successful in workplaces with norms characterized by acceptance of diversity, and a caring and respectful atmosphere (Kirsh, 2000). Accordingly, the social work environment may have a central role to play in vocational rehabilitation. We thus need greater knowledge about the employers who

do provide work to participants in IPS. Their experiences and views need to be understood, as well as their role in the IPS-network. More knowledge is also needed about how to build collaborative relationships with employers. According to Gilbride et al. (2003), we must continue to gain greater knowledge with regard to employers and work environments in order to be able to reduce the barriers to employment that many people with SMI experience.

Implications for research

The research into the working life of people with SMI is scarce. This can be due to the extensive unemployment rates in this group of people and that little attention has been given to the pre-vocational rehabilitation, as it concerns a socially marginalized group. Further research is needed in terms of how psychiatric disability affects work performance, partly because it is still unclear why IPS-participants do not all obtain competitive employment or keep their job. This is emphasized in both occupational therapy research (Liu et al., 2007) and IPS-research (Banks et al., 2001; Drake & Bond, 2011). The relationships between cognitive functioning, communication and interaction skills, and vocational outcome variables, and what area of cognitive impairment may be decisive for getting a job or not need to be investigated. Knowledge in this area may further help to explain which impairments are necessary to support and accommodate for as people with SMI start work. Such actions could further compensate for disability, and facilitate employment success and sustainable careers that last. Similarly little is known about how the IPS-intervention actually works. The support and process in IPS thus needs to be further investigated in an individual, longitudinal, and a Person-Environment-Occupation (PEO)-match perspective. In particular, perceived work-related disabilities and what accommodations are provided and by whom needs to be explored, as well as the relationships between disabilities and accommodations. According to Shankar (2005), the nature of the on-going support is essential for employment success. It is also important to explore IPS-participants' perceptions of their worker role and work environment. Furthermore, the employers' perspectives appear to be essential to explore and understand. Such knowledge may promote better understanding of how occupational therapists and other rehabilitation personnel, working according to the IPS-principles, can develop collaborative employer relationships and provide for an adequate support, to promote job-tenure and employment success for a greater proportion of the IPS-participants.

Thesis aim and specific aims

The overall aim of this thesis was to explore the psychiatric disability that people with severe mental illness have in relation to work. This also included the ongoing time-unlimited support involved in Individual Placement and Support (IPS) being investigated in a person, environment, and occupation perspective, as well as the employers' experiences and views of being part of the IPS-network.

The specific aims were:

To investigate the support and process in IPS from individual client, longitudinal, and Person, Environment, and Occupation (PEO)-match perspectives (Study I).

To explore how IPS-participants working in a mainstream or real-world work setting perceive working and how their work environment impacted on their work performance (Study II).

To investigate relationships between cognitive functioning and vocational variables in terms of being either competitively employed or not, hours and weeks in competitive employment, and income among people with SMI who attended vocational rehabilitation services (Study III).

To explore communication and interaction skills as assessed in mainstream work settings in relation to cognitive functioning and vocational variables among people with SMI who attended vocational rehabilitation services (Study III).

To explore employer experiences and views of participating in the IPS-network and taking IPS-service users into their workforce (Study IV).

Materials and methods

Overview of the four studies

This thesis is based on four empirical studies (Studies I-IV, Table 1) conducted from 2009 to 2014 together with an IPS RCT, 2008 - 2013, in Sweden. The research designs chosen were considered to best correspond to the study aims. Studies I, II, and IV had a qualitative approach, whereas Study III had a quantitative cross-sectional approach. Combining qualitative and cross-sectional studies has been described as valuable since they together inform the development of new interventions and maximize the learning from RCTs (Ho, Peterson, & Masoudi, 2008; Peters, 2010). Cross-sectional designs have been described as useful for gaining a deeper understanding of a phenomenon by identifying correlations and associations between variables at a single point in time (Kazdin, 2009). On the other hand the main strengths in using qualitative studies is that they can highlight the participants' experiences of the treatment, and provide a way of giving a voice to the participants (Ayres, Kavanaugh, & Knafl, 2003). Furthermore, RCTs have been described as being limited in explaining "how" and "why" a specific treatment worked, whereas qualitative research studies may provide answers to these questions (Yin, 2009).

Research context

In the RCT, in which research context this thesis is conducted, 120 persons with SMI were recruited from six mental health care teams in a southern Swedish city of 300 000 citizens. The teams focused on the needs of persons with SMI and covered all geographical areas in the city. All enrolled participants had a SMI. The diagnoses were validated against the medical record, and the severity of the psychiatric disability (>2 years) was confirmed by the psychiatrist. Most of the participants were diagnosed with schizophrenia or other psychoses. They were aged from 21 to 58 years, had not been active in the labour market for at least the preceding year, and expressed a desire to work in competitive employment. They were able to communicate in Swedish and participated in an obligatory introduction meeting that concerned the research designs and ethical considerations. Participants having a physical disability were excluded. The IPS-fidelity, measured by means of the SEFS (Becker et al., 2008),

showed that the IPS-fidelity was good at 6 months (110 points) and 12 months (115 points), and excellent at 18 months (117 points) (Bejerholm et al., in press). The traditional pre-vocational rehabilitation scored on average 38 points (range: 36-48). Three employment specialists were recruited who met the qualification requirements of having an outgoing personality, an occupational therapy education or training in psychiatric vocational rehabilitation, and experience of working with persons with SMI.

Table 1. Overview of the research design, selection of participants, and methods for data collection and analysis (Studies I-IV).

Study	Research design	Selection of participants	Method/data collection	Method/data analysis
Study I	Qualitative/ multiple case study	Maximum variation sampling of five cases or IPS-participants who had obtained work during the first 12 months of the intervention and had been working a minimum 4 hours a week on a regular basis.	<i>Multiple data collection method including:</i> -Socio-demographic questionnaire -IPS-profile and plan -POES-P -Work accommodation form -Work characteristics questionnaire	<i>General analytic technics:</i> Relying on theoretical prepositions, within- and across-case analysis, and interpretation of the meaning of the case. <i>Specific analytic technics:</i> Qualitative content analysis, creation of flow-charts, and PEO-match analysis.
Study II	Qualitative/ interview study	Purposeful sampling of 19 IPS-participants who had started work in mainstream work settings during the first half of the IPS RCT.	Semi-structured interview questions from the WEIS-S	Qualitative content analysis
Study III	Quantitative/ cross-sectional study	All participants ($n=77/87$) who remained in the RCT at the 18-months follow-up and consented to take part in the study.	-Questionnaire covering socio-demographic and clinical characteristics, and vocational outcomes -BPRS -Cognitive test battery (Table 4) -ACIS	<i>Statistical analyses with IBM SPSS statistics 20:</i> -Chi-square test -Mann-Whitney U-test -t-test -Cronbach's alpha -Spearman's Rho test -Logistic regression analysis
Study IV	Qualitative/ grounded theory with situational analysis	Theoretical sampling of 9 employers with experience of participating in the IPS-network, and taking IPS-service users into their workforce.	Grounded theory based interviews	<i>Grounded theory:</i> Open and axial coding, constant comparative methodology, and process analysis. <i>Situational analysis:</i> Abstract messy maps, relational analysis, and positional maps.

Participants and inclusion criteria

The inclusion of participants (Studies I-III) in relation to the RCT is presented in the following flow-chart (Figure 3).

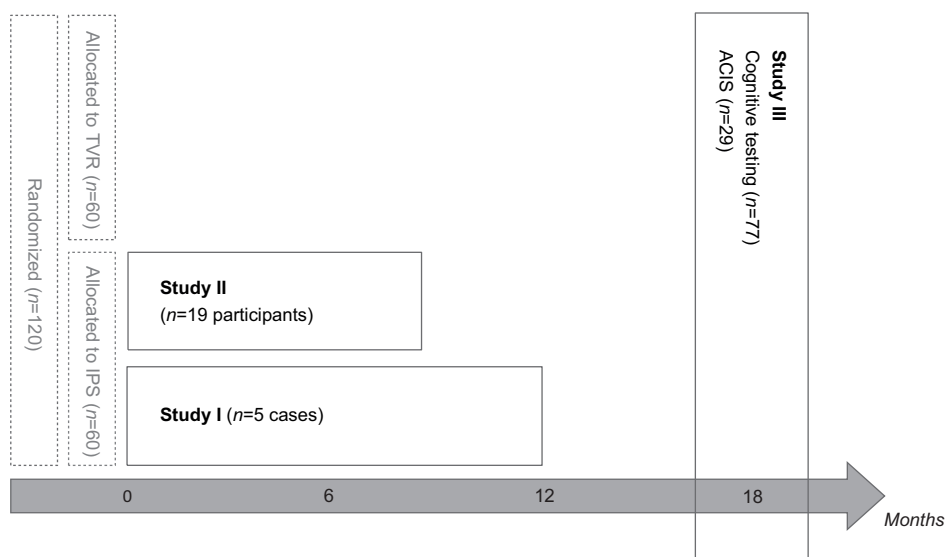


Figure 3. Flow-chart of the inclusion of participants in Study I-III in relation to the IPS RCT (TVR is used in this figure as an abbreviation for traditional pre-vocational rehabilitation).

Studies I and II included participants who entered a mainstream work setting during the first part of the IPS RCT. *Study I* included five cases or participants who obtained work during the first twelve months of their participation (Figure 3, Table 2) and had been working regularly for a minimum four hours a week. This was considered an adequate criterion since IPS-participants often start their working career gradually and few work full-time (Bond & Campbell, 2008). The number of cases included is in line with the recommendations for a multiple case study (Creswell, 2007; Yin, 2009). Maximum variation sampling was also used and included diversity in terms of gender, country of origin, employment specialist, years since last employment, work experience, type of work, educational level, amount of working hours per week, and self-disclosure.

The inclusion criteria for *Study II* were that the participants were to have entered a mainstream work setting during the first half of the IPS RCT trial (Figure 3). Informed consent was obtained from 19 of 29 eligible participants. Eight women and eleven men were included, with a mean age of 40 years. Most participants were diagnosed with schizophrenia or other psychoses. Fourteen participants originated from Sweden, and five from Europe and Asia. One participant had completed comprehensive school, 10 had completed sixth-form college, and eight had a college

or university degree. Nine had and four had not worked during the past five years, and six had no work history at all. Fifteen had gained internship and four competitive employment.

Table 2. Demographic and work characteristics of the five cases (Study I).

	Catherine	Amber	James	Mark	Asif
Age (years)	40	32	36	42	38
Country of origin	Sweden	Thailand	Sweden	Sweden	Pakistan
Diagnosis	Schizoid personality disorder	Psychosis	Paranoid schizophrenia	Paranoid schizophrenia	Paranoid schizophrenia
Hospital admissions (<i>n</i>)	1	1	2	2	4
Employment specialist	1	2	1	2	1
Last employment (years)	-	4	1	2	7
Work experience (yes/no)	No	No	Yes	Yes	No
Type of work	Personnel in store ¹	Personnel in second-hand store	Teacher in art study group ²	Engineer ³	Personnel in department store
Higher education (yes/no)	No	No	Yes	Yes	Yes
Working hours (%)	20	50	10	100	20
Self-disclosure (yes/no)	Yes	Yes	Yes	No	Yes

¹ Catherine worked at two different workplaces during the case study period. First she worked in a larger department store and then in a small interior decorating shop.

² After James completed the first art study group at the day centre for persons with mental retardation he started another group at the same worksite.

³ Mark studied engineering and was a trainee in two different settings, and after graduation gained employment.

In *Study III* all RCT participants who remained in the study at the 18-months follow-up and consented to take part in the study were included ($n=77/87$) (Figure 3). It is to be noted that the sample included both the participants who received IPS and those who received traditional pre-vocational rehabilitation. No significant differences were found at the 18-month follow-up between those who had withdrawn ($n=33$) and those who remained in the study ($n=87$) concerning socio-demographic and clinical characteristics (Areberg & Bejerholm, 2013). There were not either any significant differences between those who consented to take part in Study III ($n=77$) (Table 3) and those who did not ($n=10$). Twenty-nine of the 77 participants who consented to take part in the study were in addition assessed for communication and interaction skills in their workplace settings, and included participants who had gained either competitive employment or an internship placement in a mainstream work setting. It was not possible to include those who had not disclosed their psychiatric disability or illness at work and thus had no on-worksites support. There were no significant differences between those who were included ($n=29$) and the other

study participants ($n=48$) except from group affiliation ($p=.001$). Most participants belonged to the IPS group.

Table 3. Description of socio-demographic and clinical characteristics in Study III ($n=77$).

Age mean (range)	38.5 (+7.6)
Gender, $n(\%)$	
Male	40 (52)
Female	37 (48)
Married/cohabiting, $n(\%)$	14 (18)
Single/living alone, $n(\%)$	63 (82)
Ethnicity, $n(\%)$	
Swedish	49 (64)
Immigrant	28 (36)
Diagnosis (ICD-10), $n(\%)$	
F20-F29 Schizophrenia, schizotypal and delusional disorders	51 (66)
F30-F39 Mood [affective] disorders	11 (14)
F60-F69 Disorders of adult personality and behaviour	7 (9)
F40-F48 Neurotic, stress-related and somatoform disorders	6 (8)
F00-F09 Organic, including symptomatic, mental disorders	1 (1)
F99-F99 Unspecified mental disorder	1 (1)
Number of hospital admissions (during the study period of 18-months), $n(\%)$	
0	62 (81)
1	13 (17)
2	1 (1)
3	1 (1)
Symptoms (BPRS), mean score (range)	
Total sum	29 (18-51)
Positive symptoms	14 (10-28)
Negative symptoms	5 (3-10)
Depressive symptoms	6 (2-11)
General psychopathology	5 (3-12)
Highest educational level, $n(\%)$	
Comprehensive school	3 (4)
6th Form college	40 (52)
College or University	34 (44)
Work history (prior to baseline), $n(\%)$	
Yes	53 (69)
No	24 (31)
Years since last employment (at baseline), age mean (range)	5.8 (+5.6)

In *Study IV*, theoretical sampling (Corbin & Strauss, 2007) was applied to select 9 employers with experience of being part of the IPS-network, providing on-worksite

support, and taking on IPS-service users in their workforce. Theoretical sampling focuses on finding data sources that can address specific concerns in the emerging analysis until saturation is reached (Corbin & Strauss, 2007). This means that employers were recruited gradually, and the theoretical sampling aimed for diversity in duration of employer experience, age, gender, workplace, private or public sector, and profitability. All employers who were asked to participate agreed to do so ($n=9$), and completed the interview. They were between 39 and 62 years old; five were men and four women. They had two to 16 years of employer experience, and three had completed sixth-form college and six had a college or university degree. Three were from the public sector and six from the private one. The companies' work areas were camera store, day centre, property management, information technology, university, paper industry, and pet shop. Five of the companies had less than five employees, two had 10-50 employees, and two had more than 50 employees. Five employers provided competitive employment and four offered internship for IPS-service users.

Data collection and procedure

The data in *Study I* was collected during a period of 12 months for each case and was guided by a case study protocol, in line with Yin (2009). The interviews in *Study II* were conducted once the participants had been working for an average of two months. Each interview lasted about 40 minutes and was conducted either at the mental health outpatient unit or at the participants' workplaces. In *Study III* the data collection was administered at the 18-month follow-up at an outpatient unit on two occasions for each participant. Each session lasted approximately one hour. The participants' communication and interaction skills in various social interactions at work were also assessed. The employer interviews in *Study IV* were conducted after the IPS RCT was completed, 2012-2013. Each employer was interviewed once and the interviews lasted about 90 minutes and were conducted at the employers' workplaces.

Socio-demographic and clinical characteristics

Baseline socio-demographic and clinical characteristics were collected by means of a questionnaire (Studies I-III). The diagnosis was self-reported and later on validated against medical records according to the diagnosis system International Classification of Diseases, ICD-10. The employers' socio-demographic characteristics were collected during the interviews (Study IV).

Symptoms

The *Brief Psychiatric Rating Scale (BPRS)* (Overall & Gorham, 1962) was used to assess psychiatric symptoms, such as depressive symptoms, disorganization, disorientation, and hallucinations (Study III). The rating scale consists of 18 items, with a total sum score of 126 points, scored on a 7 point scale ranging from 1 (not present) to 7 (extremely severe). The rating is based on both an interview and observed behaviour. A total mean score <30 is considered as not at all ill, whereas 84 is considered extremely ill (Leucht et al., 2006). The scale allows for analysing into positive, negative, and depressive symptoms, and general psychopathology. The interviewers were carefully trained in using the instrument, since it has shown to increase the inter-rater and intra-observer reliability (Crippa, Sanches, Hallak, Loureiro, & Zuardi, 2001). Cronbach's alpha was calculated to .71.

Work characteristics

The *IPS-profile and plan* (Socialstyrelsen, 2012a), the *Work characteristics questionnaire* (Bejerholm, 2009b), and the *Profiles of Occupational Engagement in people with Severe mental illness – Productive occupations (POES-P)* (Bejerholm & Eklund, 2007b) was used to gather data on work characteristics (Study I). The latter two were administered by the employment specialist when the participant had been working for at least two weeks and every time the participant started a new job. Supplementary interviews with the employment specialists were performed by the author. For the description of the IPS-profile and plan see the description of the IPS-intervention in the introduction. The Work characteristics questionnaire (Bejerholm, 2009b) provides data on type of work, workplace characteristics, employer information, and geographical placement. The POES-P (Bejerholm & Eklund, 2007b) was used to gather data on the work activities performed. The POES-P involves filling in a time use diary in one-hour intervals during the working hours. The diary comprises the activities carried out during the time-frame, description of the social and physical work environment, and personal experiences and reflections.

The employer vocational characteristics (Study IV) were derived from the interviews with the employers and concerned type and size of company, whether the company was privately or publicly run, and was profitable or not.

Vocational variables

Vocational data in Study III included registering the participants' vocational data in terms of having competitive employment or not, having an internship placement, number of weeks and hours competitively employed, and monthly income.

Disabilities and accommodations

The *Work accommodation form* (Bejerholm, 2009a) was used to gather information on the IPS-participants' work-related disabilities and the accommodations provided (Study I). It was administered together with the Work characteristics questionnaire and the POES-P. The first part addresses work-related disabilities and accommodations provided. The questions covers employee training, working hours and schedule, work tasks, communication, training by staff and supervisors, the physical environment, and finally an open-ended question about the participants mentioned disabilities and the accommodations provided. The second part consists of an open-ended question about accommodations and support provided by the employment specialist.

IPS-participants' perceptions

A semi-structured interview derived from the *Work Environment Impact Scale* (Kielhofner, 2008), *the Swedish version (WEIS-S)* (Ekbladh & Haglund, 2000), was used to explore the participants' perceptions of their worker role and work environment (Study II). WEIS-S is based on the MOHO (Kielhofner, 2008) and consists of two parts, (1) an interview and (2) a rating scale. The instrument is designed to gather data on how workers with disabilities perceive the characteristics in their work environment, and to assess how different aspects in the work environment impact on the workers' work performance. WEIS is organized around 17 environmental factors that reflect the social and physical work environment. The WEIS part one was used and the semi-structured interview guide was used as a starting point and, as the interview proceeded, a checklist to cover all parts of the work environment that may have impacted on the participants' work performance.

Cognitive functioning

The participants' cognitive functioning (Study III) was assessed by means of a cognitive test battery (Table 4) corresponding to the cognitive domains used in McGurk and Mueser's study (2006a) and the consensus test battery developed by MATRICS (Nuechterlein et al., 2008). The test battery was administered by a psychologist trained in using the instruments. The training was held by an experienced neuropsychologist in the research team with experience of using the cognitive assessments and psychometric testing who also scored and evaluated the tests.

Table 4. Cognitive test battery and cognitive domains measured (Study III).

Cognitive test battery	Cognitive domains
Trail making test condition 2: Number Sequencing (D-KEFS)	Attention, psychomotor speed
Digit symbol substitution test (WAIS-III)	Information processing speed
Digit span forward (WAIS-III)	Attention span
Digit span backward (WAIS-III)	Working memory
Logical memory 1 and 2 subscales (WMS-III)	Verbal learning and memory – immediate and delayed verbal recall
Visual reproduction 1 and 2 subscales (WMS-III)	Visual memory - immediate and delayed visual recall
Tower of London ^{DX}	Planning, reasoning and problem solving

A high score in the different tests is equal to better cognitive functioning, except for the Trail Making Test where a high score indicates poorer performance. The tests are well-known and widely used among neuropsychologists (Lezak, Howieson, Bigler, & Tranel, 2012) and have shown to have good psychometric properties concerning both validity and reliability (Cullbertson & Zillmer, 2001; Delis, Kaplan, & Kramer, 2005; Lezak, et al., 2012; Nuechterlein et al., 2008; Wechsler, 1997a, 1997b, 2003, 2008).

The *Trail making test* condition 2: Number Sequencing (Delis-Kaplan Executive Function System, D-KEFS) (Delis et al., 2005) was used to measure *attention and psychomotor speed*. The test tracks the time in seconds it takes to complete the task of connecting numbers in a correct order sequence.

Digit symbol substitution test (Wechsler Adult Intelligence Scale-III, WAIS-III) (Wechsler, 1997a, 2003) was used to assess *information processing speed*. The test comprises matching simple abstract symbols to individual numbers, 1 to 9, for 120 seconds according to a given key. Correct number of accurately matched symbols was tracked and registered.

Digit span forward was used to estimate *attention span*, and *Digit span backward* to estimate *working memory* (WAIS-III) (Wechsler, 1997a, 2003). The participant is asked to repeat a given number string with increasing length forwards (digit span forward) or backward (digit span backward). Total correct responses were registered.

Logical memory 1 and 2 subscales (Wechsler Memory Scale, third edition, WMS-III) (Wechsler, 1997b, 2008) were used to assess *verbal learning and memory - immediate and delayed verbal recall*. The first subscale, Logical memory 1 (*immediate verbal recall*), includes the test leader reading two short stories for the test person. After each story the test person is asked to retell the story from memory. After a delay of 30 minutes, the test person is once again asked to retell the stories from memory (second subscale: Logical memory 2, *delayed verbal recall*). Total number of correct answers for each subscale was registered.

Visual reproduction 1 and 2 subscales (WMS-III) (Wechsler, 1997b, 2008) were used to assess *visual memory – immediate and delayed visual recall*. Five figures are

shown to the test person one at a time for 10 seconds each. The test person is then immediately asked to draw each figure from memory (Visual reproduction 1, *immediate visual recall*). Following a delay of 30 minutes the test person is asked once again to draw the figures from memory (Visual reproduction 2, *delayed visual recall*). Total number of points for each subscale was registered.

Tower of London^{DX} (Cullbertson & Zillmer, 2001) was used to assess *planning, reasoning and problem solving*. The test includes the manipulation of three wooden balls onto different sized rods in order to create a given configuration, across ten levels of increasing complexity and according to given rules. The total number of problems solved in a minimum move count, i.e. Total Correct Score, was registered.

Communication and interaction skills

The *Assessment of Communication and Interaction Skills* (Kielhofner, 2008), *the Swedish version (ACIS-S)* (Haglund & Kjellberg, 2004) was used to assess *communication and interaction skills* (Study III). The ACIS-assessments were administered by three trained vocational rehabilitation personnel. The training was held by an occupational therapist, who also followed up the testing. Five to ten structured observations in various social interactions at work were covered for each participant. ACIS-S is an observational instrument and builds on MOHO. Twenty items are structured in three domains; (1) physicality, (2) information exchange, and (3) relations. Each item is scored on a four point scale (1-4). A high score represents a competent performance that supports the social interaction. ACIS-S has shown good validity and reliability (Kjellberg, Haglund, Forsyth, & Kielhofner, 2003). In the present study Cronbach's alpha was calculated to .94.

Employer experiences and views

Grounded theory based interviews (Corbin & Strauss, 2007) were used to get narratives of the employers' experiences and views (Study IV). At first, the employers were asked to recall events of being part of the IPS-network. Furthermore, during the interview some specific question areas were covered: employers' support, IPS professional support, work-related factors, views/attitudes, experiences, and society. As the interviews were performed and analysed, the codes and preliminary categories added more specific and modified question areas. No additional content areas emerged during the eighth and ninth interview, and therefore no further interviews were performed.

Data analyses

Multiple analytic strategy (Study I)

The data in Study I was analyzed using a multiple analytic strategy, in line with Yin's guidelines for case study analysis (Yin, 2009). The case study protocol mentioned earlier, which also included an analysis chart, further helped to clarify the analysis process. General analytic technics used were relying on theoretical prepositions, within- and across-case analysis, and interpretation of the meaning of the case (Creswell, 2007; Yin, 2009), and specific analytic techniques were qualitative content analysis (Burnard, 1991), creation of flow-charts (Yin, 2009), and PEO-match analysis (Law et al., 1996).

The first part concerned within-case analysis. The collected data was read case by case to get an impression of the whole and a detailed description of each case regarding socio-demographics, work characteristics, IPS-profile and plan, and disabilities and accommodations was provided. As part of this analysis the Work accommodation form (Bejerholm, 2009a) was analysed using Burnard's (1991) qualitative content analysis (see next section). Some sub-categories corresponded to the question areas in the Work accommodation form, however, new sub-categories were also discerned. The support for each case was also mapped in flow-charts to illustrate the longitudinal IPS-process. The PEO-match pre-work and at-work were also analysed using the PEO-model (Law et al., 1996). The PEO-match analysis was a specific analytic technique, as well as a way of displaying and interpreting data from individual cases according to theories and constructs in the literature, i.e. to interpret the meaning of the case, in line with Creswell's (2007) and Yin's (2009) guidelines for case-studies. The second part concerned across-case analysis. In the first analytic step the three lists of disabilities and accommodations created were further merged and refined using content analysis. The second step involved analysing the cases for similarities and differences with regard to the IPS-process, the support provided, and the PEO-match. The third and final part included calculation of frequencies and distributions of accommodations, and analysis of the relationships between accommodations and disabilities.

Qualitative content analysis (Studies I and II)

In this thesis both manifest and latent qualitative content analysis was used, i.e. the manifest analysis focused on the actual wording and sentences in the interview manuscript, whereas the latent approach offered a more interpretive approach to analysis, in keeping with Graneheim and Lundman (2004). In Study I content analysis as described by Burnard (1991) was used since it was found to be a good way to capture the manifest content, whereas in Study II content analysis in accordance

with Graneheim and Lundman (2004) was used to interpret both the manifest and the latent content.

A description of how content analysis by Burnard (1991) was used in Study I is provided in the previous section. In Study II the first step of the content analysis, inspired by Graneheim and Lundman (2004), included transcribing and reading the interviews repeatedly to get an impression of the whole. Initial thoughts and impressions were written down. In the second step, the text that resembled the research aim was extracted from the interview transcripts and merged to one text, which constituted the unit of analysis. Thirdly, each meaning was condensed and labelled with a preliminary code and comparative analysis was used to analyze the preliminary codes for similarities and differences and group them into preliminary categories. These categories were then further condensed and grouped in several steps into new categories and sub-categories. During all parts of the analysis comparisons were made with the original text to establish that they covered the meaning of the text. As a last step of the analysis a theme was formulated that reflected the underlying meaning of the text. All parts of the analysis were discussed among the authors until agreement was reached.

Statistics (Study III)

The data was analysed using IBM SPSS statistics 20. A p -value of $\leq .05$ was considered statistically significant. Chi-square test was used when making comparisons between categorical variables and Mann-Whitney U-test for making comparisons between groups. Differences in age were analysed using t-test. Median and interquartile range were calculated for the different cognitive tests respectively. The groups' mean raw scores for the cognitive tests derived from the WAIS-III and D-KEFS batteries were transformed to age corrected scaled scores with a mean of 10 and a SD of 3 (Delis et al., 2005; Wechsler, 1997a, 1997b). The age corrected standard score, age 30-39 years, with a mean of 100 and a SD of 15, was applied for the Tower of London^{DX} (Cullbertson & Zillmer, 2001). A scaled or standard score 1.5 SD below the normative means was considered as subnormal, in keeping with the recommendations of Lezak, et al. (2012). Cronbach's alpha was calculated for the BPRS and ACIS-S respectively. Values over .70 were considered acceptable and values over .80 preferable (Pallant, 2010). Spearman's Rho test was applied to determine the magnitude and directions of correlations between continuous variables. Logistic regression analysis was performed to find out which variable best explained the variation in the dependent variable. The variables that were found to significantly differ ($p \leq .10$) between the groups were included; *delayed verbal recall*, *immediate visual recall*, *attention and psychomotor speed*, and *planning, reasoning and problem solving*. Age, previous work history, and negative symptoms were also controlled for being as they have shown to be associated with vocational outcomes in prior studies

(Catty et al., 2008; McGurk & Mueser, 2006a; Tsang, Leung, Chung, Bell, & Cheung, 2010). The confidence interval was set to 95 %.

Grounded theory with situational analysis (Study IV)

The program Open Code 4.01 was used as a structuring tool and memos were written to aid the analysis process. Data collection and analysis occurred in a circular process until saturation was reached, in accordance with grounded theory (Corbin & Strauss, 2007). To increase the trustworthiness of the findings, data was coded by two researchers separately after each interview. Additionally, all parts of the analysis were discussed among the authors until consensus was reached. Firstly, we proceeded through the stages of open and axial coding. The open coding involved breaking down the interview data in manageable pieces. The interview transcripts were coded line-by-line by identifying concepts and their properties and dimensions that represented the ideas contained in the data. The axial coding occurred in concurrence with the open-coding. During this process, cross-cutting and related concepts were subjected to constant comparisons. This part of analysis focused on codes and concepts that referred to the process, i.e. the on-going actions and interactions, and emotions the employers had as they were part of the IPS-network and took on an IPS-service user in their workforce. One core-category and six main-categories were identified and illustrated in a conceptual process model.

The cartographical approach situational analysis (Clark, 2005) was used as a supplementary approach to grounded theory to fully approach the complexity of the situation. Clark has developed three main situational maps (Clarke, 2005; Clark & Friese, 2007); (1) abstract messy map, (2) social world arenas map, and (3) positional map. The maps are intended as analytic exercises and are well suited to use as an analytic approach within grounded theory (Clark, 2005). In this study, abstract messy maps were used during both open and axial coding which helped to open up data and reflect on data from different angles and plan further theoretical sampling. Relational analysis between the different codes in the map supplemented the grounded theory comparative analysis. A positional map was created to highlight the major positions taken, or not taken, among the employers concerning the reason to take on IPS-service users into their workforce. Finally, a social world arenas map was created to get a meso-level interpretation of the situation, which is presented in the discussion section.

Ethical considerations

The IPS-project and the thesis studies were approved by the Regional Ethical Board, Lund University, Sweden (Dnr 202/2008), in accordance with the law on ethical

review on research involving humans (SFS:2003:460). An additional application was made for Study III (Dnr 700/2009).

To ensure the principle of autonomy (Beauchamp & Childress, 2001), informed written consent was obtained (Studies I-IV). All participants were carefully informed about the study aims, research designs, and ethical issues, such as the voluntary nature of their participation, and confidentiality. Additionally, the participants in Studies I-III participated in an obligatory introductory meeting, which was also an inclusion criterion, where the information previously mentioned was repeated. During these meetings the presumptive participants also had the opportunity to present and discuss their concerns. Additional information was also provided to the employers in Study IV that specified that no sensitive data of the service user could be revealed during the interview.

With regard to beneficence and non-maleficence (Beauchamp & Childress, 2001), there were no immediate risks of doing harm to the participants. The IPS-intervention was based on the participants own willingness, resources, and abilities and gave opportunity to gain and keep a competitive employment, which probably reduced eventual discomfort (Studies I-III). One overall benefit was also that the study results may contribute with knowledge and an increased understanding of the psychiatric disability in relation to work, and what accommodations is needed to support people with SMI to increased job-tenure. Furthermore, most participants expressed an interest in sharing their experiences and wanted to contribute to help others in similar situations. Discomfort may, however, have arisen during data collection, since it claimed both participants' time and efforts, and concerned sensitive data on diagnosis, questions about the private and working life, which may have been experienced as a violation of privacy. It was thus important to create a safe environment for data collection, and to emphasize the participants' own decision to provide answers. The carefully provided information may also have reduced eventual discomfort. Furthermore, in Study III only participants who had disclosed their illness or disability at work were asked to participate in the *communication and interaction skills* assessments at work in order to protect the IPS-participants' confidentiality. Additionally, in Study IV only employers who were informed about the participants' illness or disabilities and where part of the IPS-network were asked to participate. Furthermore, the research results were presented by pseudonyms, codes, and/or on an overall level (Studies I-IV).

To ensure the principle of justice (Beauchamp & Childress, 2001), the case-managers on the mental health outpatient units informed all their clients about the study, which provided equal opportunities to participate.

Results

Support and process in IPS (Study I)

The IPS-process was studied in a longitudinal perspective. It took between six and nine and a half months for the participants to start work. This process varied due to how long the administration of the IPS-profile and plan, as well as the job-seeking process took. However, finishing one job and starting another took less than one month. In this part of the IPS-process, when the participant was between two jobs, the IPS-vocational plan was revised and updated according to the participant's current work functioning and preferences. The support and process in IPS for the different cases is illustrated in Figure 4.

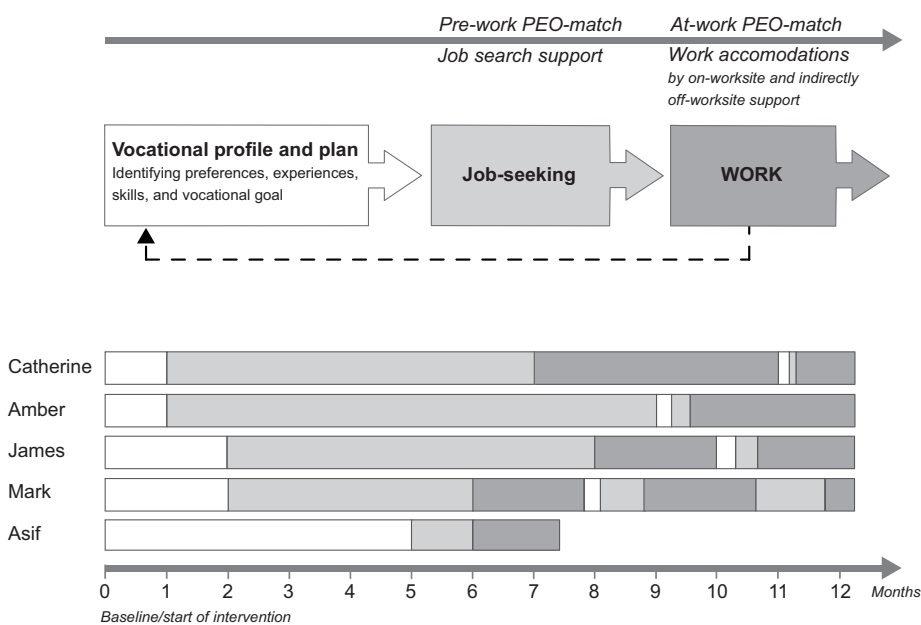


Figure 4. Support and process in IPS over 12 months for each case in Study I.

The employment specialist was in charge of organizing and initiating the support throughout the IPS-process, which can be seen further on in Table 5. The support provided included: job-seeking support, job-person matches, and adjustment of the match by providing accommodations by on- and off-worksites support (Figure 4). Additionally, as part of the comprehensive support, an IPS-network was organized in relation to each participant based on his or her vocational needs. In this IPS-network, relevant professionals from the mental health care team, Public Employment Service, and Social Insurance Agency were included, as well as employers, co-workers, friends, and family members. The composition of and number of persons in the IPS-network varied in relation to each participant's needs, preferences, and choice. The most prominent factor for the composition of the network concerned whether or not the participants had disclosed their illness or disability at the worksite. If they had disclosed, the employment specialist could provide both on- and off-worksites support. As a consequence, the employer, supervisor, and colleagues could take part in the IPS-network (Table 5). However, if a participant chose not to disclose their psychiatric disabilities at work, it was common that the work accommodations were performed indirectly, through off-worksites support, by helping the participant to cope with work on his/her own¹. Here the employer and others at the worksite were not part of the IPS-network (Table 5) and the IPS-network instead only included, e.g. friends, family members, and professionals from the mental health care team.

Psychiatric disabilities and work accommodations

In all cases, it was evident that the participants experienced disabilities in their work performance, which required accommodations. The most common disabilities referred to were *interacting socially*² and *handling symptoms/tolerating stress*. In descending order, the participants also had disabilities that required accommodations in *learning work tasks* because of difficulties in following and remembering instructions and work routines and concentrating, *working independently* because of difficulties in initiating, planning and solving problems, and organizing work,

¹ *Example 1, Off-worksites support.* To be able to accommodate James' disabilities at work several professionals in his IPS-network provided off-worksites support. The psychiatrist provided medical consultation by updating his medication. The case-manager provided counseling to support James to cope with the mental distress at work. The employment specialist provided guiding advice in how to plan and lead the art study group and strategies of how to remember the working hours, with additional support from the housing support personnel in the municipality. The employment specialist also supported James in managing transportation by bus, and designing strategies to handle the fear he encountered.

² *Example 2, Catherine's and Mark's disabilities in interacting socially.* Catherine experienced disabilities when she was communicating with her supervisor and making small talk with colleagues at the department store. In general she felt anxiety in social situations at work. Mark also experienced disabilities in *interacting socially*. He had an impairment in interpreting social cues, which resulted in him often feeling that everything was his own fault, which made it even harder for him to interact with others at work.

following schedule/attending work, maintaining work stamina, and adjusting to changes. Disabilities in *learning work tasks* and *working independently* are illustrated in Example 3³. The distribution and frequencies of the work accommodations performed on and off the worksite are given in Table 5.

Table 5. Distributions and frequencies of accommodations and psychiatric disabilities, and their relationships (Study I).

Disabilities		Number of accommodations																							
		On-worksite support (by ES, supervisor and co-workers) through/in/by						Off-worksite support (by ES and e.g. friends, family, and mental health care team) by/in																	
	<i>N persons with specific disabilities</i>	...	work performance	...	providing guidance or education	...	rearranging work	...	flexible scheduling	...	social interaction	...	mod. to the physical environment	...	counselling	...	guiding advice	...	CBT-treatment	...	medical consultation	...	transportation	<i>N of accommodations</i>	
<i>N persons provided with spec acc.</i>		5		4		4		4		4		3		3		2		2		2		1		1	
Interacting socially	5	5		4		1				6		1		3				3							23
Handling symptoms/tolerating stress	5	4		4		4		3		1		1		2						1		1			21
Learning work tasks	4	5		3		6		1				3								1					19
Working independently	4	8		4		2		1									2			1					18
Following schedule/attending work	2	4		2													2								8
Maintaining work stamina	2	1		2				2																	5
Adjusting to changes	1					1																			1
<i>N of accommodations</i>		27		19		13		8		7		5		5		4		3		3		1			95

³ Example 3, Asif's disabilities in *learning work tasks* and *working independently*. Asif's disabilities in *learning work tasks* and *working independently* was a result of his thought or cognitive disorder. He had disabilities in concentrating, following and remembering instructions and routines, which made it difficult for him to remember and complete his work tasks. These disabilities also affected the way in which he initiated and organized his work tasks, and solved problems. As a consequence, he had difficulties in *working independently* and needed on-worksite support from the employment specialist and his supervisor to initiate, organize, and complete tasks at work.

On average 19 work accommodations were performed in each case (range: 9-26). Most accommodations were provided in relation to the on-worksites support, as compared to off-worksites support. The results also showed that several and varying kinds of accommodations were applied for the same disability. The most frequently occurring disability that required accommodation concerned *working independently* and having on-worksites support in work performance⁴. Furthermore, the accommodations required to compensate for a specific disability also varied across the five cases. For example, as can be seen in Table 5, disability in *handling symptoms/tolerating stress* was accommodated with the most varied types of on- and off-worksites support. As described earlier on, the disability in *interacting socially* with others at work was commonly accommodated to enable the participants' work performance. Example 5 illustrates common relationships between the disabilities in *interacting socially* and relevant accommodations made⁵.

The person, environment, and occupation perspective

The interpretation of the disability and how well the person dimensions (Personal sphere) matched the work environmental characteristics (Environmental sphere), and the job or work tasks (Occupational sphere) were performed with guidance from the PEO-model (Figure 5), and is described in this section.

The employment specialist could provide the PEO-match more satisfactory if the participant had prior work experience since the onset of the illness, disclosed the illness or disabilities at work, and was not in an acute phase of the illness. As a consequence, the employment specialist could consider a PEO-match both before the participant started to work (pre-work PEO-match) and in relation to the workplace (at-work PEO-match). It was particularly evident that work experience after the onset of the illness provided the employment specialist with information about how to improve the PEO-match in advance.

⁴ Example 4, *disabilities in working independently and learning work tasks and required accommodations*. As a result of auditory hallucinations, Amber had difficulties in concentrating, and following and remembering instructions. This affected her abilities in *learning work tasks* and thus *working independently*. To compensate for these disabilities the employment specialist adjusted her pace of work (rearranging work) and provided hands-on supervision in work performance. These support strategies helped Amber to learn and then perform her work tasks independently. The employment specialist also provided support by providing guidance or education to staff or supervisors regarding Ambers disabilities and accommodation needs.

⁵ Example 5, *disabilities in interacting socially and required accommodations*. The employment specialist provided Catherine with support in social interactions. She suggested conversational topics that Catherine could use during her breaks, and concrete strategies about how to handle fear of social interactions with colleagues and customers at work. The employment specialist also provided hands-on supervision and strategies about how to assist customers. Furthermore, the staff and supervisor were supported in receiving guidance about Catherine's disabilities and accommodation needs by the employment specialists, which concerned how they best could support Catherine when she experienced failure and fear in social situations.

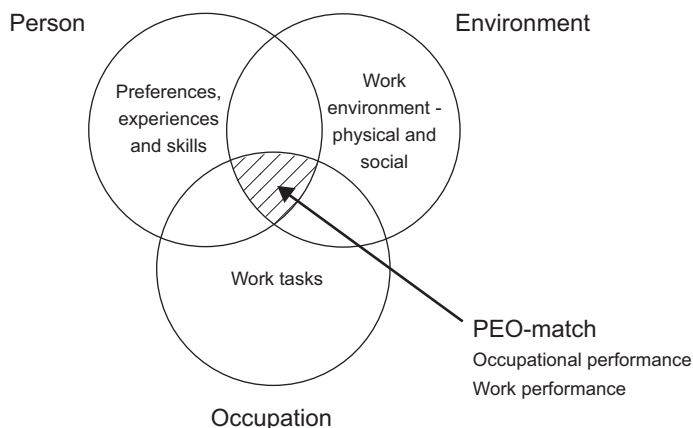


Figure 5. The PEO-model illustrating the PEO-match.

When adjusting the PEO-match at-work, the employment specialist provided accommodations in the spheres that corresponded to the participants' disabilities. In total, 17 accommodations were made in the Personal sphere, 45 in the Environmental, and 33 in the Occupational. The accommodations were mostly directed towards the social work Environment and were most frequently related to disabilities in the Personal sphere of *interacting socially* and *working independently*. In the Personal sphere off-worksite support such as counselling was provided to enable the participants to work independently. The PEO-matches for Amber and James⁶, Mark⁷, and Catherine and Asif⁸ are presented below.

⁶ *Example 6, Amber and James, examples of satisfactory PEO-matches.* Both Amber and James had experience of working with a SMI and were able to describe their disabilities in relation to different work settings for the employment specialist. They also disclosed their disabilities to their employers. This made it possible for the employment specialist to provide for a good PEO-match and collaborate with the employers throughout the IPS-process. They maintained their jobs, developed and became more independent at work. Amber, who perceived herself disabled by her hallucinations in the very beginning at work, became independent in her work performance and started to assume a supervisory role towards new trainees. James also became more independent, increased his work load, and developed in his role as a teacher in the art study group.

⁷ *Example 7, Mark, unsatisfactory match between the Personal and the Environmental sphere.* Mark decided not to disclose his illness to his employer. He thus had no on-worksite support, and the PEO-match was based solely on his preferences and work experiences before he became ill. As a consequence, the employment specialist could not evaluate the PEO-match at work, which resulted in an unsatisfactory P-E match. Because of his sensitivity to noise and impairments in interpreting social cues (Personal sphere), he had disabilities in his work performance (Occupational sphere). In his first workplace he shared an office with a colleague and at the second workplace he had his office by the canteen (Environmental sphere). As a result he was repeatedly interrupted by colleagues in both workplaces and he could not be open about why he needed not to be disturbed.

Perceptions of worker role and work environment (Study II)

The results in Study I revealed that the work environment posed multiple problems or disabilities in work performance among the IPS-participants, such as in *interacting socially* and *working independently*. Additionally, the accommodations made to the social work environment increased the IPS-participants' ability to work independently. It thus appeared to be important to further explore the environment perspective in relation to the difficulties the IPS-participant perceived. The aim in Study II thus concerned the exploration of the environment perspective more fully in relation to the IPS-participants' own perceptions of working and how they perceived their work environment's impact on their work performance. The results showed that the participants strove to fit in at work by attempting to cope with environmental demands and adapting to a worker role (Core-category).

Work and its positive impact on daily life

For me it means a lot to work. I improve my skills and it's rewarding ... I really enjoy working.
(IPS-participant, Study II)

All participants perceived working as valuable and as mainly having a positive impact on their daily life. Most participants had not been working for the last five years or longer. Work was therefore perceived as a means to get started and be occupied, to break isolation and build new social relationships, to get a daily structure, and

⁸ *Example 8, Catherine and Asif, unsatisfactory PEO-matches.* A satisfactory pre-work PEO-match was difficult to provide for Catherine and Asif. They had no experience of working since the onset of their illnesses. The employment specialist attempts to compensate for the unsatisfactory pre-work PEO-match, by accommodating for their disabilities, did not succeed. Catherine left her job as a result of her disabilities in *interacting socially* and *maintaining work stamina*. Her social disabilities (Personal sphere) made it difficult for her to serve customers and make small talk with colleagues (Occupational sphere) at the large department store (Environmental sphere). She eventually finished working there since it was not in line with her preferences. The IPS-vocational plan was revised in accordance with her current work experience and it was now possible to create a new PEO-match before seeking the next job. Two weeks later she started to work in an interior decorating shop. In contrast to the large department store, the shop was small in size, had few customers, and had only one co-worker who also was the employer. This limited the number of social interactions she had to face on a daily basis. Furthermore, the work tasks were also in accordance with her preferences. The good PEO-match made it possible for her to succeed at work and train her social skills as the challenge was appropriate for her. Asif, on the other hand, decided to end his IPS participation and take time to improve his mental health. His long term goal was to find a job in line with his preferences, but for now he needed an adequate medication and to learn strategies in how to handle his symptoms.

distraction from psychiatric symptoms. The work itself was perceived as enjoyable, as it provided them with hope for the future, and contributed to learning experiences over time, as they developed new skills. Work, however, was described by some participants as involving conflicting experiences. Work could thus be perceived as having both a positive and a negative impact on the leisure time and they could both feel success and failure at work. Furthermore, some participants perceived that they felt accepted by their colleagues, but at the same time they felt alienated and excluded because they had a mental illness.

Supportive and demanding factors in the work environment

I could talk aloud to myself when I worked ... no one thought it was weird. (IPS-participant, Study II)

You get irritated when someone is meddling with everything you do. When everything is wrong, I feel that I'm a failure. (IPS-participant, Study II)

As part of the social work environment, the IPS-participants' perceived that the employer support, the social atmosphere among colleagues, and the work requirements could both enable and restrict their work performance. The employers' were mostly perceived as tolerant, friendly, and supportive, which was perceived as enabling. However, the more controlling or demanding qualities of the employers were perceived as restricting. All participants perceived it as vital that the employer provided enough time for them to adapt both when they started working and also throughout the period they worked. The employers had a vital role to play with regard to providing structure, by giving step-by-step work instructions, and feedback and supervision in work performance. The participants also appreciated that their employers' demands were related to their own needs for challenges at work. Apart from the employer, the colleagues could function as an enabling part of the work environment. In particular, many participants perceived it as supportive if their colleagues were positive, open-minded, cheerful, and friendly. However, a tense and negative atmosphere among colleagues was perceived as a restriction. Many IPS-participants also perceived that their work entailed implicit work requirements, which could both enable and restrict their work performance, i.e. being well, taking responsibility, working independently, being able to commute to and from work, and having social skills.

Impact of mental illness on work performance

I could hear voices, like a discussion in my head... and at the same time customers came up to me and asked me questions, and then I felt like the customers interrupted the conversation in my head. I was totally surprised! I had difficulties concentrating on what the customer said. (IPS-participant, Study II)

In Study II, the IPS-participants described similar disabilities when they were working as those revealed in the document analysis in Study I. However, the result in Study II showed that some disabilities were gradually reduced, while others were perceived as enduring or even gradually increasing over time. The disabilities in interacting socially were mostly reduced as they developed their social skills. However, coping with a flexible or spontaneous social work environment, where situations or persons varied, became an enduring social disability for some. Fear of commuting to and from work, and not being on time for work because of difficulties getting started in the morning were disabilities that also endured for some. Some also felt enduring disabilities as a result of being afraid of being stigmatized, and sensitivity to audio and visual stimuli. Disabilities in maintaining work stamina, due to personal difficulties maintaining motivation or because of fatigue, and disabilities in coping with symptoms/tolerating stress endured or even gradually increased for some during the time they worked. Personal disabilities in remembering, concentrating, and learning work tasks were also enduring or gradually increasing disabilities for some.

Personal strategies to cope with the work environment

No one should be able to see how bad you feel. The customers expect a job well done, that's why I pretended as much as I could. (Participant, Study II)

All participants had their own personal strategies to cope at work. Some described it as necessary to use strategies in order to cope with their symptoms. At work, they acted as if they did not have any mental health problems and distracted themselves from hallucinations by, for example, keeping busy performing work tasks. They also initiated support from the IPS-network by speaking to their employer or contacting the employment specialist when needed. Some also got in touch with the psychiatrist to adjust the medication. Other strategies used were trying to accept their illness and disabilities, and cope with stress at work. For example, they planned their work activities, ate regularly, and attended to early signs of relapse in their illness. Some also coped with being afraid in work situations by accepting the emotion and exposing themselves to the fearful situation. Having the "right" attitude towards work was another strategy commonly used, and was seen as being essential to how they succeeded at work. This could involve having confidence in the own ability, taking responsibility for their own actions, and making an effort. Other important social strategies were described as balancing between disclosure and not telling the employer about the illness or disabilities, being more dependent or taking own work initiatives, and speaking their minds or not objecting. Another commonly used strategy was to plan and organize activities over the day, i.e. to put together varying work tasks, and adapt the work pace, or manage the balance between work and leisure time by accomplishing a comfortable level of requirements in work performance.

Cognitive functioning, communication and interaction skills and work (Study III)

In Study I, the result showed that the IPS-participants had cognitive disabilities at work, i.e. difficulties in concentrating, remembering, initiating, planning and solving problems, and organizing work. These disabilities can be interpreted as existing on a functional level (i.e. impairment) of a person and regard the person perspective of the disability. Similar findings were found in Study II, when the IPS-participants were interviewed about how they perceived their work environment. A greater understanding of how cognitive functioning is related to vocational variables in a larger sample of people with SMI appeared to be necessary, and was thus the main aim in Study III. Furthermore, since the social disabilities were another dominant feature of the results in Studies I and II, a further aim was to explore *communication and interaction skills* as assessed in the work environment, and in relation to cognitive functioning and vocational variables.

Clinical characteristics and cognitive functioning

Most participants in Study III were diagnosed with schizophrenia or psychoses. The other participants had a mental illness where the psychiatric disability was persistent and impacted on the ability to manage everyday life. As shown in Table 3, in the method section, most participants ($n=62/77$) had not been admitted to hospital during the study period of 18 months and no significant changes in symptoms were found at the 18-month follow-up in relation to the baseline measurements. The participants scored on average 29 of the 126 point total sum of the BPRS, which is considered as not being ill. Regarding their cognitive functioning, the participants as a group performed within the low average range, as compared with the population norms on most cognitive tests. The only exceptions were related to their abilities in the Trail making test (*attention and psychomotor speed*), and Visual reproduction 1 (*immediate visual recall*), where they performed ≤ 1.5 SD below the normative means (Table 6).

Table 6. Descriptive statistics for the results of the cognitive tests, Study III.

Cognitive test (range)	n	IQR			Max total score	Mean	SD	Mean scaled score
		25 th	50 th (Median)	75 th				
Trail making test, TMT (21-269)	75	34	43	58	^a	53.9	40.9	4 ^d
Digit symbol substitution test (17-92)	74	42	54	61	^b	53.1	15.2	6
Digit span forward (3-14)	76	7	8	9	16	8.18	2.1	-
Digit span backward (2-10)	76	4	5	6	14	5.14	1.8	-
Digit span forward/backward (5-23) ^c	76	11	13	16	30	13.3	3.5	7
Logical memory 1 (5-59) ^c	76	20	32	41	75	30.9	13.2	7
Logical memory 2 (0-39)	76	11	19	25	50	18.8	9.4	8
Visual reproduction 1 (14-102)	77	58	71	87	104	69.2	21.6	5 ^d
Visual reproduction 2 (0-100)	77	30	53	73	104	51.1	26.3	9
Tower of London ^{DX} (0-9)	76	0	2	5	10	2.8	2.6	88 ^c

^a time in seconds, ^b correct number of symbols accurately copied, ^c total score digit span forward and backward, ^d ≤ 1.5 SD below the test norm, ^e standard score

Cognitive functioning and vocational variables

The participants who had gained competitive employment ($n=18$) after 18 months had significantly higher scores in *immediate visual recall* (competitive employment $Md=85.5$, no competitive employment $Md=70$, $z=-2.300$, $p=.021$) and *planning, reasoning and problem solving* (competitive employment $Md=5$, no competitive employment $Md=1$, $z=3.215$, $p=.001$), as compared to those who had not. Furthermore, higher scores in *planning reasoning and problem solving* were correlated with more working hours ($r_s=.30$, $p=.008$) and weeks ($r_s=.32$, $p=.005$) in employment. Higher scores in *delayed verbal recall* were also found significantly related to a higher income ($r_s=.24$, $p=.034$). *Planning, reasoning and problem solving* was also found in the logistic regression model to best explain the variation in having competitive employment, or not, among the participants, as shown by an odds ratio of 1.39. This means that the probability of having competitive employment increased with 39% for each score in the *planning, reasoning and problem solving* test.

Communication and interaction skills, vocational variables, and cognitive functioning

The assessments of *communication and interaction skills* at work showed that the IPS-participants who had gained competitive employment ($n=18$) had higher total scores compared to those who had not (employment $Md=72.5$, no employment $Md=62$, $z=2.995$, $p=.003$). The results of the *communication and interaction skills* assessments also showed significant correlations between higher total score, i.e. competent performance that supports the social interaction, and hours in competitive employment, $r_s=.57$, $p=.001$, weeks in competitive employment, $r_s=.54$, $p=.003$,

higher income, $r_s=.45$, $p=.014$, and higher scores in *delayed verbal recall*, i.e. long term memory, $r_s=.39$, $p=.034$.

Employers' experiences and views (Study IV)

The employers' attitude and engagement was important for the IPS-participants' work satisfaction (Study II). Furthermore, the employers also showed to have a vital role in the IPS-network, negotiating and providing workplace accommodations (Studies I and II). Based on these results, it seemed important to explore the employers' experiences of and views on the IPS and being part of the IPS-network, and to partake of their personal knowledge and views on specific challenges and shortcomings of their employees or trainees. The aim of Study III was thus to explore employer experiences and views of participating in the IPS-network and taking IPS-service users into their workforce.

Not using the resources of people with mental ill health in the workforce is a desperate waste.
(Employer, Study IV)

Conceptual model of employer experiences and views

All employers had a history of being personally socially committed in the past and strove to maintain their social commitment throughout the process of participating in the IPS-network and taking IPS-service users into their workforce. The process is described in six stages (Figure 6). As shown in the figure, the stages in the process do not follow a specific order.

The first stage, *IPS is the keyhole*, puts emphasis on the employers' experience of the employment specialist support as an enabler of work integration for people with SMI. The employers described it as important that the employment specialist was trustworthy and professional when he or she was promoting the IPS-service user and themselves, making job inquiries, and negotiating with the employer on the service users' behalf. The employment specialist's on-going support was also described as a necessity. From the perspective of the employers, the employment specialist's support played a crucial role in several stages in the process.

The second and third stages, *being ready to open the door* and *making a job-offer*, highlighted the importance of the employers' personal traits, previous experiences, and current views for their readiness to open the door for the service user. These previous experiences could include having met people with mental illness or people in vulnerable situations before. Negative experiences of inadequate support from pre-vocational rehabilitation services were also important for their readiness. Personal views, that work had a positive and vital role in any person's life, and that unemployment and sick-leave were devastating for anyone, also had an influence. On the one hand, they viewed the welfare system as inadequate and deficient in helping

people with SMI back to work, on the other hand they viewed the possibility of having internship placements as a win-win situation for the company. The IPS-service user received work experience and references, while the employer got an extra pair of hands at a lower cost, since they were economically compensated by the welfare service. They also believed in taking social responsibility and that IPS-service users were potential workers. In general, they were open-minded and socially engaged, and had a social conscience. The employers were brave when it came to trying new things, being innovative, and had a positive outlook on people and their resources. External conditions, such as financial issues, high employment taxes, and dependence on the welfare system, also had an impact on their readiness to open the door.

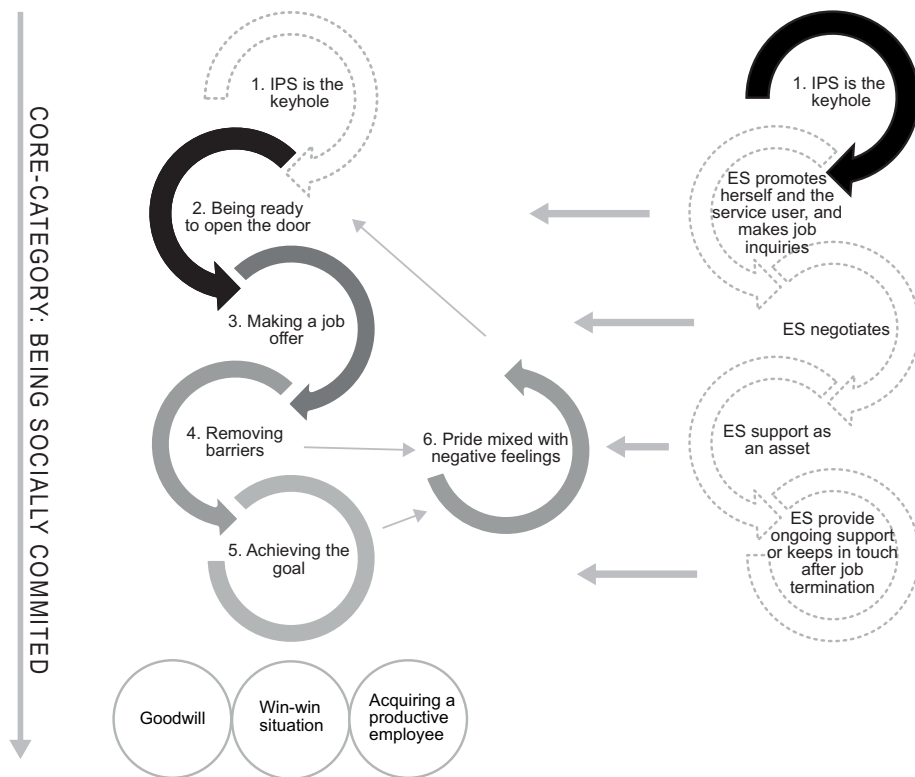


Figure 6. Conceptual model of employer experiences and views of participating in the IPS-network and taking IPS-service users into their workforce, presented as a process (Study IV).

The fourth stage, *removing barriers*, highlights the employers' role in the IPS-network support and their use of direct and indirect support strategies. Direct support strategies included, for example, making a job-person match, adjusting working

hours, modifying work tasks, and adapting the personal approach. The latter could involve being flexible and tolerant, but could also mean reminding, marking boundaries, and nagging. Other direct strategies that were mentioned were helping the service user to cope with the mental illness and to provide hands-on support in work performance. Indirect support strategies involved, for example, using the support the employment specialist provided, urging the other employees to take a social responsibility, and delegating supervisor responsibilities to an employee. As evident in prior stages, the employers' relied on previous experience. These previous experiences functioned as a rationale and their life-experience gave self-awareness and confidence. They believed that accommodating the disabilities the IPS-service user had as effective. They also believed in having a realistic approach. Their personal characteristics or traits also had an influence. They were engaged, emphatic, tolerant, and problem-focused and considered the greater the challenge the better. Furthermore, organizational and work cultural issues enabled and restricted how the employer could remove barriers. Organizational issues included whether the company was private or public, organization type, staffing and size, and if the company offered relevant work tasks. Work cultural issues concerned the social atmosphere among employees. The employers perceived it as facilitating if the employees were tolerant towards differences, helpful, and understanding.

The fifth stage, *achieving the goal*, elaborates on the employers' reasons and goals for taking on the IPS-service user in their workforce: goodwill, win-win, and acquiring a productive employee. The following positional map was created to elaborate on the different positions taken, or not taken, behind these goals (Figure 7). *Position A* includes employers of profitable larger companies who simply open their workplace because of goodwill, and allow the IPS-service user to participate at the worksite without any specific job requirements. *Position B* encompasses employers in companies that see the opportunity of having subsidized manpower as a win-win situation. This position was articulated by employers in larger profitable companies that were not dependent on the welfare system for internship and subsidized manpower, as well as in smaller companies with constrained finances that use the welfare system as a survival strategy. *Position C* comprises employers in larger and smaller companies who hire IPS-service users based on merit, on the same premises as other employees, and the goal is acquiring a productive employee. The employers in smaller companies, who hire a person despite constrained finances, are driven by strong social engagement that goes beyond the company budget. *Position D*, however, was not articulated in the data. It would, however, include employers in smaller companies with strained finances who simply participate because of goodwill, and allow the IPS-service user to participate at the worksite without specific job requirements.

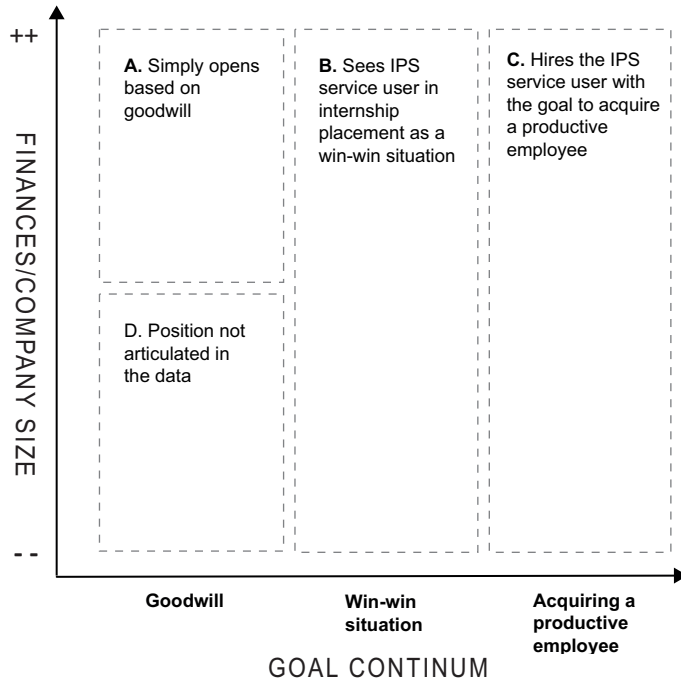


Figure 7. Major positions taken, or not taken, by the employers on taking on IPS-service users in their workforce in relation to company finances and size (Study IV).

Finally, the sixth stage (Figure 6), *pride mixed with negative feelings*, highlights the employers' reflections of being part of the IPS-network. They felt proud to be able to contribute to someone else's development, which reinforced their social commitment. Negative incidents, however, such as a larger workload or conflicts among employees evoked frustration, stress, and anger and was experienced as impacting on their further readiness to open the door. Furthermore, when the employer met personnel from the mental health care team, he or she could realise that the service user in fact was seriously ill, which could make them cautious of making too great demands that might affect the service user's well-being. The employers in smaller companies also became frustrated when they had to struggle to manage sickness absence.

Discussion

The overall aim of this thesis was to explore the psychiatric disability that people with SMI have in relation to work. For this purpose, the ongoing time-unlimited support involved in IPS was investigated in a person, environment, and occupation perspective, as well as the employers' experiences and views of being part of the IPS-network. The use of occupational theory theoretical models or frameworks in this thesis such as the PEO-model (Law, et al., 1996), the MOHO (Kielhofner, 2008), and the ICF (WHO, 2001) have increased the understanding of the complex interaction between the IPS-participant, his or her work environment and work activities, and its importance for work performance. It thus seems relevant to not only discuss the results in relation to earlier research in the area, but also in relation to this theoretical framework. As the recovery paradigm forms the basis in IPS, recovery theories will also be a starting point for the discussion. Figure 8 provides an illustration of the results (Studies I–IV) in relation to the working IPS-participant, in a person, environment, and occupation perspective. It is to be noted that this figure solely is an illustration and not part of the results.

Organization and utilization of the IPS

This thesis underlines the importance of the IPS-principle of *Ongoing time-unlimited support*. How the support provided in IPS is organized and delivered may have an impact on the IPS-participants' job-tenure and employment success.

Social work environment most frequently accommodated

As shown in the PEO-match analysis in Study I, the accommodations were mostly directed towards the social work environment, in keeping with previous research (MacDonald-Wilson, et al., 2002, 2003). Environmental modification has in MOHO been described as a useful compensatory strategy (Kielhofner, 2009). This is based on the assumption that the environment is more retentive to change than the person and can have both an enabling and restricting impact on an individual's work performance (Kielhofner, 2008; Law et al., 1996). According to MOHO, support from the employer and co-workers in the social work environment can facilitate

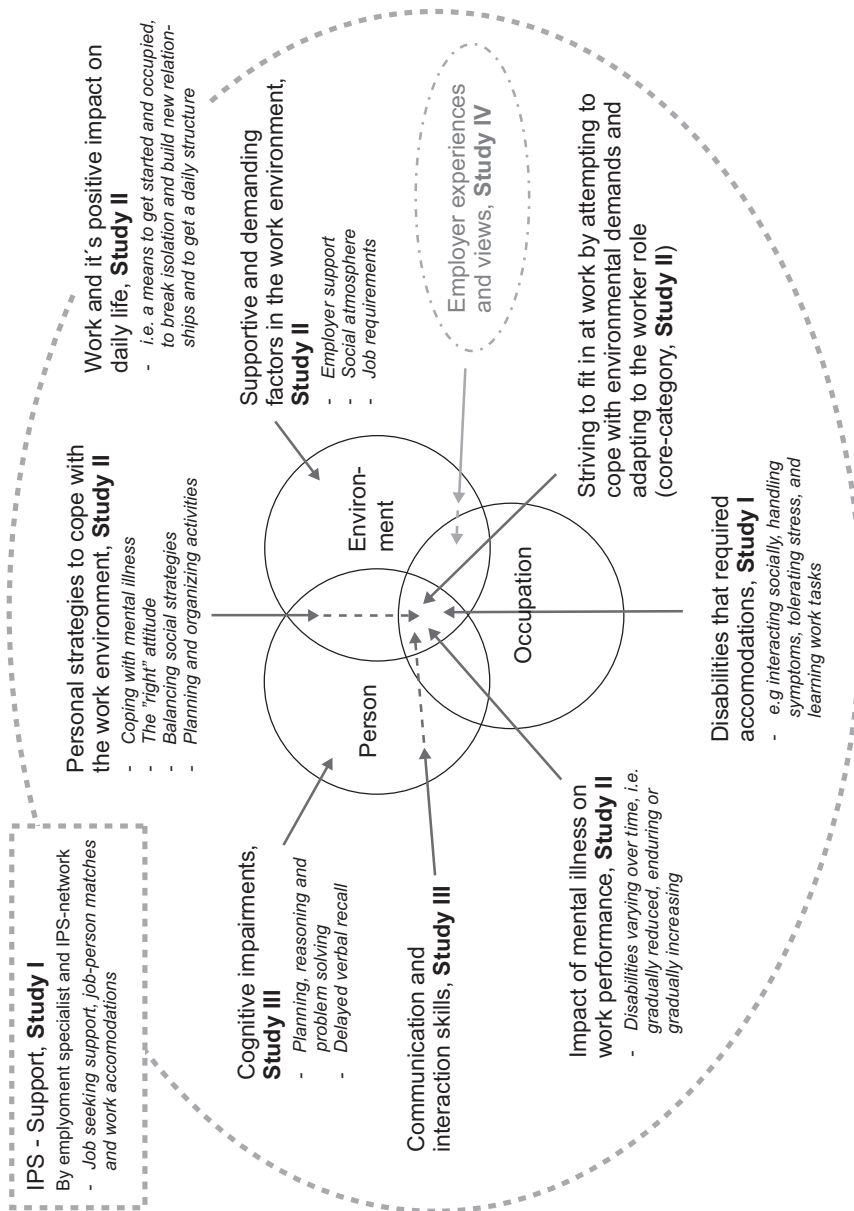


Figure 8 illustrates the working IPS-participant in a person, environment, and occupation perspective (Studies I–IV).

performance, which sustains and increases the worker's motivation and participation (Kielhofner, 2008). Numerous advantages of accommodating the social work environment were already evident in working life research during the 90s. The provision of social support at work was described in relation to a demand/control

model as maintaining long term health, and buffering psychological strain caused by work-related stress, and affecting productive behaviour in a positive way (Karasek & Theorell, 1990). Social support at work has also shown to facilitate increased skills acquisition, maintenance, and integration at work for IPS-participants (Murphy, Mullen, & Spagnolo, 2005). Having social support is also related to the likelihood of being satisfied on the job (Villotti, Corbière, Zaniboni, & Fraccaroli, 2012), and is a significant predictor of vocational outcomes among people with schizophrenia (Tsang et al., 2010). Accordingly, social accommodations can compensate for a psychiatric disability and are likely to have a positive impact on the IPS-participants' job-tenure and employment success, especially since the disabilities in interacting socially were shown to actually decrease over time (Study II).

On- and off-worksite support

The accommodations by on-worksite support (Study I) were in keeping with previous research (MacDonald-Wilson et al., 2002, 2003; McGurk & Mueser, 2004; Shankar, 2005). However, in addition to on-worksite support, work accommodations were also provided indirectly by off-worksite support. Although, the support provided outside the workplace is not a novelty in IPS-practice or research, it has not previously been emphasized or untangled from the on-worksite support. When considering the IPS-principle *Integration of the IPS-vocational rehabilitation plan with the mental health care team* (Bond & Campbell, 2008; Rinaldi et al., 2008), it is apparent that off-worksite support such as medical consultation, support from the case manager, and CBT-treatment (Study I) forms a part of high fidelity IPS. With regard to this matter, it is vital to stress that the IPS in Sweden should become integrated with the mental health care teams, instead of only implementing IPS into the vocational rehabilitation services in the municipalities, where a close collaboration with the teams have been shown difficult to achieve. Altogether, the mental health care team and their expertise constitute an essential part of the support in IPS. Without this collaboration, IPS would become more of a supported employment service in general.

IPS-participants who disclosed their illness or disability at work benefitted from both on- and off-worksite support, whereas participants who decided not to disclose got indirectly off-worksite support to help the IPS-participant to cope with his or her own situation while at work (Study I). Not everyone with SMI wants to disclose their disabilities at work. Sometimes the disabilities that people with SMI have do not interfere with work, which makes it irrelevant to disclose the illness. Not wanting to disclose at work may also be due to that the IPS-participant has a fear of being stigmatized, in line with Mark's case in Study I, and previous research (Björkman, Svensson, & Lundberg, 2007; Brohan et al., 2012). According to Brohan et al. it is important to consider the fear of disclosure within the context of the society in which people with mental health problems are stigmatized. For example, job-seekers with mental health problems have in several studies been rated by employers as less employable. However, in an English longitudinal study over 4 years, the employers' knowledge and attitudes about mental health problems had changed for the better as

a result of actions made by the UK government and other organizations to assist employers in addressing mental ill health in the workplace (Henderson, Williams, Little, & Thornicroft, 2013). Nevertheless, at the end of the study, they still lacked knowledge about the regulations related to employing people with mental health problems. Additionally, negative attitudes among co-workers were still described by the employers as a barrier to employing people with mental health problems. This puts the IPS-participants in a difficult situation when it comes to deciding whether to disclose their illness at work or not. In line with Mark's case (Study I), and according to Shankar (2005), the employment specialist must respect the IPS-participants' choice of disclosure. Furthermore, this informed choice forms a part in the IPS-methodology and is a question area that is assessed in the fidelity scale. It is thus vital to put a real effort in organizing and making the off-worksite support and PEO-match as satisfactory as possible, where the dialogue with the participant is crucial.

The IPS-network as central

The IPS-network was a concept that was introduced in the results in Study I, which made it easier to understand, define, and communicate the results in Studies II and IV. The IPS-network had a central role providing support (Studies I, II, and IV). Together with the employment specialist the employers, supervisors, and co-workers provided on-worksite support (Studies I, II, and IV), whereas the off-worksite support was provided by the employment specialist together with friends, family members, and personnel in the mental health care team (Studies I and II). As part of the IPS-network support, the employers had an important role in negotiating and providing on-worksite support (Studies I, II, and IV). Their support, attitude, and engagement was described as vital by the IPS-participants (Study II), which further confirms the results in the study by Areberg et al. (2012). It can, however, be assumed that the IPS-participants' perceptions of employer support are similar to what people experience in general. For example, important tasks for a leader are to provide clear instructions, work tasks that are motivating and empowering, and to provide a supportive work context (Attridge, 2009; Burke, Sims, Lazzara, & Salas, 2007). These are leadership styles that have shown to create trust (Burke et al., 2007), and employment engagement (Attridge et al., 2009), and which were attributes that were identified by the employers in Study IV, as they described themselves as using these strategies. It can thus also be assumed that these leadership styles influence their attitude towards and engagement in providing worksite support for people with SMI.

The PEO-match and job-tenure

The initial PEO-match, which was performed in the making of the first IPS-vocational plan, was an important factor for increasing or decreasing job-tenure among the IPS-participants (Study I), as shown in earlier IPS-studies (Kukla & Bond, 2012; Mueser et al., 2001; Shankar, 2005). Furthermore, the results in Study I indicate that deficiencies in this initial match are difficult to fully compensate for by

accommodations at work later on, which also corroborates previous research (Shankar, 2005). In this initial PEO-match IPS must thus include both the IPS-participants' preferences and skills, and a systematic workplace analysis on the environmental and occupational characteristics. A literature review on the job-person fit theory (Goštautaitė & Bučiūnienė, 2010), showed that the alignment between a worker and his or her work environment is central for enabling work performance. According to the theoretical frameworks in the MOHO (Kielhofner, 2008), the PEO-model (Law et al., 1996), and the ICF (WHO, 2001), the impairment first becomes a disability in the encounter with the environment.

Previous work history, disclosure, and not being acutely ill

Previous work history, disclosure of the illness or disabilities at work, and not being in an acute phase of the illness were indicated as important factors for the IPS-participants' utilization of the support provided in IPS (Study I). This may explain why not all people with SMI who want to work benefit from IPS. According to Shankar (2005), IPS-participants are often aware of their disabilities but have, as a result of their limited work history, difficulties in predicting their support needs when they start to work. They may therefore need to try out several jobs to gain a greater awareness of their disabilities and support needs in different work settings. In this sense, IPS plays an important part in enabling people with SMI to gain experience and knowledge of their impairments in relation to work. In fact, having a work history is one of few predictive factors to employment success (Catty et al., 2008; Tsang et al., 2010).

Reclaiming the worker role - work is recovery!

Working in mainstream work settings was perceived as a struggle to fit in at work by attempting to cope with environmental demands and adapting to a worker role (Core-category, Study II). Most participants had not been working for the last five years or longer. To reclaim meaningful roles such as the worker role has been described as critical in the recovery process as it allows people with SMI to define themselves as members of the community rather than outcasts (Mancini et al., 2005; Noordsy et al., 2002; Onken et al., 2007). Additionally, work implies a shift from the patient role to the worker role. The worker role was perceived as having numerous advantages and having mostly a positive impact on daily life (Study II), in line with previous research (Boardman, et al., 2003; Dunn, et al., 2008; Koletsi et al., 2009; Schön et al., 2009). Among other things, the participants described that being engaged in a worker role gave hope for the future and was a way of breaking isolation and building new relationships. To feel hope for the future is a precondition for motivation, action, and change (Noordsy et al., 2002). Hope has also been described as the initial stage of recovery, which gradually expands to engagement and fulfilment

in social roles and inclusion in the community (Boardman et al., 2003; Bond, et al., 2004; Onken et al., 2007), which was also described by the IPS-participants in Study II. They also described that engaging in a worker role gave additional advantages such as daily structure, distraction from psychiatric symptoms, and contributed to learning over time, as shown in previous research (Eklund et al., 2009).

Coping with having a mental illness

To adapt to a worker role at the same time as coping with a mental illness posed a number of challenges for the IPS-participants (Study II). Since an early onset of the illness often causes a disruption of the vocational career (OECD, 2013), people with SMI often lack opportunities to develop a worker role (Kielhofner, 2008). As a consequence, they may not always meet the expectations of the social group at work (Onken et al., 2007). These findings may help to explain why the participants in Study II perceived that the social work environment had a significant influence on their efforts to adapt to the worker role and that some perceived work as involving conflicting experiences, findings which have not been presented in previous research. Furthermore, the social work environment can also be anticipated as being a barrier, which may entail difficulties in worker role performance and feelings of being excluded from the work group (Kielhofner, 2008). It is reasonable to assume, however, that people in general perceive such conflicting experiences. IPS thus plays an important part in giving people with SMI the opportunity and support to enter and cultivate a stable worker role over time.

With support from the employment specialist, the IPS-participants used their own strategies to cope with their work environments in order to maintain their worker roles (Study II), which concurs with findings in previous research (Blank, Harries, & Reynolds, 2011; Fossey & Harvey, 2010; Onken et al., 2007). To learn and use self-management and wellness strategies have been described as a cornerstone of being in recovery to cope with having psychiatric symptoms and overcome stigmatization (Onken et al., 2007). Furthermore, according to the job-control theory, strategies of how to cope with work-related stress and maintain well-being are important (Van der doef & Maes, 1999). Consequently, it is vital in IPS to build the support on the participants' own strategies, but also to teach new strategies about how to increase skills and abilities so that the participant can become as independent in the worker role as possible. This change in abilities in skills, and decrease in disabilities are clearly reflected in both Studies I and II.

Planning, reasoning and problem solving matters

Higher scores in *planning, reasoning and problem solving* best explained the variation in having competitive employment or not at the 18-month follow-up (Study III). This result is in line with previous research where *planning, reasoning and problem*

solving is described as a hallmark of cognitive impairment among people with SMI (Bowie & Harvey, 2006). According to Lezak et al. (2012) and Kielhofner (2009), impaired executive functioning tend to directly affect the cognition in planning or performing activities, which in turn results in disabilities in managing daily life, regardless of how well preserved other cognitive capabilities are (Lezak et al., 2012). This reasoning may explain why *planning, reasoning and problem solving* did, and *attention and psychomotor speed* and *immediate visual recall* did not explain the variation in having competitive employment or not in the logistic regression analysis.

Higher scores in *planning, reasoning and problem solving* were also related to the number of hours and weeks in competitive employment at the 18-month follow-up (Study III), which is in line with previous research (McGurk et al., 2003; McGurk & Mueser, 2006a). This finding is of particular interest since these variables reflect job-tenure, as maintained by Tan (2009). The qualitative studies (I, II) in this thesis also revealed that the IPS-participants' perceived cognitive disabilities at work, which is also in line with previous research (MacDonald-Wilson, 2003). In study II, the participants' cognitive disabilities endured or gradually increased over time. In fact, cognitive disabilities such as problem solving at work have been found to be the most prevalent disability among people with SMI in supported employment (MacDonald-Wilson, 2003). This may be explained by cognitive impairments remaining stable over time (Heaton et al., 2001; Mueser & McGurk, 2004). It should thus be noted, however, that Study II only reflected the IPS-participants' initial struggle at work. Their perceptions of cognitive disabilities at work may change over time as they learn their work tasks and the IPS is adjusted. However, even if the individual support provided in IPS has shown to some extent compensate for cognitive impairments in work, it has also been maintained that impairments in higher order cognitive functioning, such as *planning, reasoning and problem solving* is not easily compensated in vocational rehabilitation (McGurk & Mueser, 2004; Tan, 2009). This thus may be one of the explanations for not all IPS-participants getting work, or working full-time or maintaining their employment once they have started to work.

Higher scores in *verbal learning and memory* were found to be correlated with a higher income, but not with hours and weeks in competitive employment (Study III), as reported in an earlier study by McGurk et al. (2003). This impairment is yet another hallmark of cognitive impairment among people with SMI (Bowie & Harvey, 2006). Impairments in this area have shown to result in disabilities in learning work tasks due to difficulties remembering instructions, and poor work habits and quality (Bowie, Reichenberg, Patterson, Heaton, & Harvey, 2006). In addition, the IPS-participants in Study I reported disabilities in *learning work tasks* as a result of poorer recall of learned information related to work tasks and routines. However, the results in Study I also showed that disabilities as a result of impairments in such cognitive area were possible to compensate for by a satisfactory job-person match, and vocational support, such as memory aids and step-by-step instructions. Impairments in *verbal learning and memory* have also been shown in previous research to be related to more intense vocational support (McGurk et al., 2003). The possibility of

compensating for impairments in this area by providing a better job-person matching, and compensatory opportunities on the job may explain the relationship between income in addition to hours and weeks in competitive employment. It may be assumed that *verbal learning and memory* may affect the type of work the person with SMI gets and thus the monthly income. Additionally, *verbal learning and memory* has shown to be associated with job-tasks complexity in a previous study (McGurk & Mueser, 2006a).

Compensation and improvement in cognitive functioning

According to the cognitive model of occupational therapy practice (Kielhofner, 2009), based on the MOHO theoretical framework (Kielhofner, 2008), different strategies can be used to compensate for cognitive disabilities, either through remedial or compensatory strategies. Remediation strategies aim to retrain or restore specific cognitive skills. Compensatory strategies, on the other hand, build on the person's existing abilities, by using remaining abilities (strategy 1), learning the person specific skills (strategy 2), or through task or environmental modification (strategy 3). The choice of compensatory strategy is dependent on how severely impaired the person's cognitive functions are. All three compensatory strategies were used in the IPS in Studies I and II; a satisfactory match between the person's cognitive capabilities and the job complexity was aimed for (strategy 1, Study I), in line with previous research (McGurk & Mueser, 2006a; Shankar, 2005); CBT strategies for solving problems were used (strategy 2, Study I); and on-going accommodations and support at work were provided (strategy 3, Studies I and II). According to Bowie and Harvey (2006), it may also be helpful to teach new strategies to learn work tasks involving greater focus on novel tasks and performing work tasks repeatedly (strategy 2). Additionally, cognitive remediation therapy has in combination with vocational rehabilitation shown to improve vocational outcomes (Arbesman & Logsdon, 2011). Several strategies can be used to compensate for cognitive disabilities in vocational rehabilitation.

Communication and interaction skills may have a role to play

Higher scores in *communication and interaction skills* were found to be associated with all vocational variables. This result corroborates the findings in a previous review (Tsang et al., 2010), in which social skills were found to be a significant predictor for vocational outcomes among people with SMI. Competent use of social skills enables a person to handle social reciprocity at work, which may affect the person's overall vocational functioning and success. As described earlier on, the IPS-participants had difficulties in coping with social interactions at work (Studies I and II). However,

their social disabilities were often reduced over time they worked as they developed their social skills, in keeping with an earlier quantitative IPS-study (Burns et al., 2009) and in accordance with the place-then-train approach (Bond, 2004; Corrigan & McCracken, 2005). This agrees with Cheung and Tsang (2005), who found that social skills were most easily taught after a person had a job when the context was clearly defined and that social skills training at the job enhanced employment outcomes among people with SMI in psychiatric rehabilitation, in keeping with Arbesman and Logsdon (2011), and Gibson, D'Amico, Jaffe, and Arbesman (2011). In this way, IPS plays an important part in assisting people with SMI to cultivate their social skills by developing appropriate social worker role scripts.

The employers - a socially committed group

Despite the heterogeneous sample (Study IV), in terms of for example employer experience or type and size of company, the results revealed a homogeneous and unique group of employers. They were socially committed from the beginning and strived to be so throughout their contact with the IPS-service user. Their social commitment was further decisive for initial provision of opportunity within their company and for taking an active role in the IPS-network. The employers' personal traits, experiences, and views also had an influence. The fact that the employers' attitude towards and experience of disabilities mattered were also concluded in a review on employers in general (Ju et al., 2013). Furthermore, in one of the studies included in the review several employer characteristics were similar to those found in Study IV (Gilbride, et al., 2003). This included the view of seeing support from a vocational service as an asset, to be tolerant towards diversity, having a positive ethos, adapting the personal approach, and striving towards making a satisfactory job-person match. There are thus common features between employers who hire people with various disabilities and the employers in Study IV.

IPS critical for decision to employ

The results of Study IV underline the importance of the IPS-principle *Systematic job recruitment and development of relationships with employers*. The employers argued that IPS allowed people with SMI to gain and retain an employment, and that IPS was the keyhole to the employment market. The employment specialist's trustworthy and professional approach, as well as the on-going at-work support was considered crucially important for their readiness to open the door. This is in line with Becker and Drake (2003), who described that spending time developing very personalized collaborative relationships with employers is critical for a successful IPS-intervention. The results of Study IV also corroborates the findings in an earlier study of successful support provided by supported employment services and other disability groups, such as neuropsychological and intellectual disabilities (Gustafsson et al., 2013). However,

the on-going support in IPS is in contrast with supported employment in general, which is limited in intensity and time.

Occupational therapists suitable as employment specialists

The central role of the employment specialist was truly reflected in Studies I, II, and IV and that his or her skills are crucial for the quality of IPS is in keeping with previous research (MacDonald-Wilson et al., 2002; McGurk & Mueser, 2004; Shankar, 2005). The education and supervision in IPS is thus crucial in order to attain high fidelity IPS. Based on the thesis findings, it can also be assumed that the employment specialist needs comprehensive knowledge of how the psychiatric disability may affect work performance, the person-environment-occupation-relationships, and how to improve or provide work accommodations to compensate for the psychiatric disability.

Occupational therapists have vast experience in vocational rehabilitation for people with SMI and have been described as suitable professionals to assume the role of employment specialist (Arbesman & Logsdon, 2011; Baxter et al., 2012; Kirsh et al., 2005; Waghorn et al., 2009). In many ways the IPS is congruent with the occupational therapy vocational practice (Baxter et al., 2012; Kirsh et al., 2005). Many of the assumptions and values related to the model of recovery, which underpins IPS, are compatible with those within occupational therapy (Rebeiro, 2005), such as viewing people with SMI as citizens who have the potential for full participation in society through employment (Kirsh et al., 2005; Rebeiro, 2005). Both practices therefore support people with SMI to gain or retain important life-roles, such as the one of being a worker (Rebeiro, 2005). In keeping with the IPS-approach occupational therapists also promote a client-centred practice and put emphasis on the client's choice and preferences, and the provision of individualized support (Baxter et al., 2012; Kirsh et al., 2005; Rebeiro, 2005). Furthermore, in this thesis the occupational therapy models, the MOHO and the PEO-model, were used as tools in order to grasp the psychiatric disability and its complexity. Occupational therapists can thus apply their expertise to the process of job-matching, accommodations and support on the job, skill development, and on the job-training, which would benefit IPS (Baxter et al., 2012). However, the occupational therapists' focus has to shift from assessments and pre-vocational rehabilitation strategies to supporting people with SMI to gain competitive employment directly, optimal PEO-matches, and providing accommodation strategies, where the client draws the vocational rehabilitation map.

A bird's eye view

When considering the results of this thesis and the aforementioned research the psychiatric disability may not be the only factor that impacts on the possibility of gaining and retaining employment. According to the ICF (WHO, 2001), the concept of disability is a social but also a political issue. The social world arena map (Figure 9) provides a cartographical illustration of the current social world's arenas related to people with SMI and work today in Sweden. In situational analysis social worlds are defined as “universes of discourse” (p. 55, Clark, 2005), which generate shared identities and perspectives among persons that form the basis for individual and collective action (Clark & Friese, 2007). As for example, an employer's actions may be affected by rules and regulations, and political decisions, as well as common discourses about mental illness. As can be seen in Figure 9, the overlap between the mental illness arena and the employment arena is narrow, which can make it difficult for people with SMI to attain or retain competitive employment.

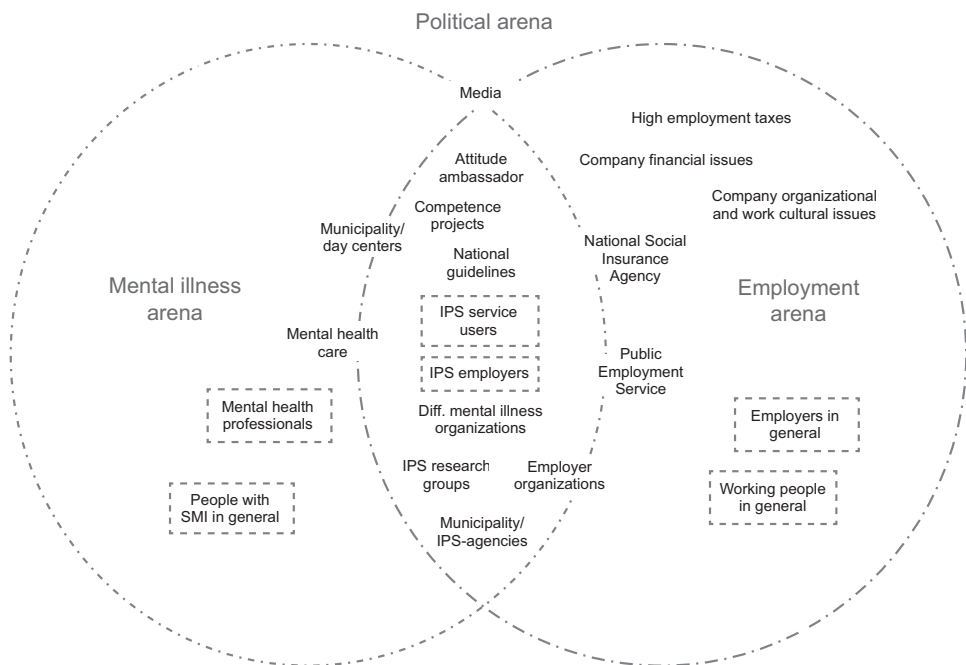


Figure 9. Social world's arena map illustrating the situation, people with SMI and work.

Barriers to employment

Although the benefits of having an employment are well recognized, the barriers to employment for people with SMI are considerable (Dickson & Taylor, 2012). There can be attitudinal barriers among people and employers in general, and the fear of losing benefits and being discriminated. Lack of adequate help from the health and welfare services is another barrier (Marwaha & Johnson, 2004). Perhaps the mental health care personnel have low expectations of people with SMI since their primary focus is not on vocational rehabilitation, and do not encourage patients to seek employment (Dickson & Taylor, 2012). The Swedish traditional or pre-vocational rehabilitation system also becomes a barrier for this group to achieve competitive employment rapidly and internship is more often suggested (Bejerholm et al., 2011). Most employers also expect such a placement before considering employing a person who has not been active on the labour market for some time (Study IV) (Bejerholm et al., 2011; Gustafsson et al., 2013). Other factors may contribute as well, such as the employer's attitude and engagement (Studies II and IV) (Becker et al., 2011; Dickson & Taylor, 2012), and work cultural issues, such as the social atmosphere among colleagues (Studies II and IV) (Kirsh, 2000). The companies' strained finances in combination with high employment taxes may also have a strong influence. Study IV showed that many small firms had internship placements and the employer viewed this as a win-win situation. There is perhaps a need for further national work incentives to enable employers in smaller companies to hire people with SMI to a greater extent.

In summary, as reflected in the social world's arena map, actions have been made to reduce stigma and discrimination of people with SMI in Sweden. Despite these actions, people with SMI are still discriminated against in Sweden today, which forms a barrier for people with SMI who want to work (Hansson, Stjernsward, & Svensson, 2013).

Methodological considerations

The multiple case study design in Study I (Creswell, 2007; Yin, 2009) made it possible to investigate the support and process in IPS in-depth over time. In Study II the qualitative interview study design gave the IPS-participants an active voice. The cross-sectional design in Study III helped to illustrate or take a snapshot of the relationships between cognitive functioning, *communication and interaction skills* and vocational variables. In study IV, grounded theory (Corbin & Strauss, 2007) with situational analysis (Clark, 2005) helped to explain actions and processes of employers involved in IPS, especially since little was known about the employers' point of view.

Validity and reliability (Studies I and III)

Study I – Multiple case study design

Several case study tactics by Yin (2009) were applied to increase validity and reliability in Study I. Multiple sources of evidence were collected in order to increase construct validity, i.e. to develop a sufficiently operational set of measures for the concepts being studied. Furthermore, the Work accommodation form was supplemented with an interview to obtain methodological triangulation, and every step of the data analysis was discussed and validated among the authors to obtain investigator triangulation. Theoretical prepositions formulated on the basis of pre-existing research reflected in the research questions served as theoretical triangulation. In this way the internal validity was also strengthened, in line with Gibbert, Ruigrok, and Wicki (2008). According to Gibbert and colleagues, internal validity or logical validity refers to the data analysis phase and is “whether the researcher provides a plausible causal argument, logical reasoning that is powerful and compelling enough to defend the research conclusions” (p.1466).

To increase reliability, i.e. that the data collection procedure can be repeated with the same results (Yin, 2009), a case study protocol was worked out to guide data collection and analysis, and a case study data base was developed.

The PEO-model was used to enhance the external validity, i.e. analytic generalization by generalizing the results to a broader theory or model (Gibbert et al., 2008; Yin, 2009). Additionally, cross-case analysis of four to 10 cases, as applied in Study I, has been described as sufficient to provide a base for such theoretical generalization (Gibbert et al., 2008). The case study design can, however, be assumed to have both strengths and weaknesses. On the one hand, the small sample size restricted the possibility for statistically generalizing the results to other settings. The Work accommodation form and its pre-formulated question areas may also have affected the content analysis and the extensive amount of data may have been a risk for inconsistency in data collection, in keeping with Graneheim and Lundman (2004). On the other hand, the case study design and the use of maximum variation sampling made it possible to collect multiple sources of evidence and made it possible to get a sense of the whole that allowed for in-depth descriptions of the support provided in IPS, which may serve as a stepping stone for further research.

Study III – Cross-sectional design

Some possible threats to the internal validity in Study III should be considered, i.e. the extent to which other alternative factors or explanations affected the outcomes (Kazdin, 2009).

All cognitive tests used in the study are well tested and should have produced valid and reliable data. However, it is impossible to rule out the possibility that some of the participants may have performed some of the tests on a previous occasion.

Familiarity with the test may influence performance on a second testing and may be considered a threat to the internal validity (Kazdin, 2009).

The timing of the cognitive testing at the 18-month follow-up and the use of retrospective vocational data in terms of hours and weeks in competitive employment at 18-months may have affected the internal validity. However, results from cognitive tests among people with SMI have in previous longitudinal studies shown to remain stable over time (McGurk et al., 2003; Heaton et al., 2001).

The sample size when exploring relationships between *communication and interaction skills* and vocational variables in combination with the Bonferroni correction for multiple comparisons may have given a false negative result.

Another internal validity issue to consider is that the cross-sectional design allowed for interpretations about correlative relationships at most, not causal ones. The skewed distributions of the vocational variables (hours and weeks, and income in competitive employment) did not allow for multiple regression analysis.

A further issue is the possible disadvantage of using logistic regression analysis in that it may cause a loss of variance being as the dependent variable is dichotomized. However, to retain as much variance as possible the independent variables were kept as ordinal scales. When drawing conclusions from the studies it should also be regarded that with the p -value of $\leq .05$ a risk occurs that 5% of the statistical findings are obtained by chance. The findings in Study III may, however, despite these restrictions generate hypotheses for further research and should be considered a part of a larger puzzle of knowledge related to the area.

Trustworthiness (Studies II and IV)

In order to enhance quality and rigor in Studies II and IV, aspects of credibility, transferability, and dependability were considered when designing these studies and performing the analyses. These studies were also written in accordance with the consolidated criteria for reporting qualitative research, COREQ (Tong, Sainsbury, & Craig, 2007).

Credibility

To strengthen the credibility, i.e. truth and believability of data, in Study II participants with various experiences were interviewed, in keeping with Graneheim and Lundman (2004), and in Study IV the participants were allowed to guide the inquiry process by feeding initial results back into data collection, in line with the constructs of theoretical sampling (Corbin & Strauss, 2007). The employers also had the possibility of confirming the analysis, in vivo codes were applied, and memos were written continuously during data collection and analysis about the researchers' experiences and preconceptions. To increase the credibility during data analysis the authors moved back and forth between the different steps in the analysis to lower the risk of losing the meaning of the text during the process of condensation and

abstraction (Studies II and IV). Despite these actions made to increase the credibility there are some limitations that should be considered in relation to Studies II and IV.

The participants in Study II were not given the opportunity to provide feedback on the analysis, which may have affected the credibility negatively. Instead it was considered important during the interview to give the participant opportunity to confirm the data collected.

Another point to consider in relation to Study II is that the semi-structured interview guide, derived from the WEIS-S based on the MOHO theoretical framework, may have established the framing for and constrained the depth of the data collected. However, the semi-structured interview guide was considered as an appropriate way to interview the participants being as many had difficulties remembering the interview questions. Additionally, the interviews generated a broad material including a large number of categories, which can be seen as strengthening the credibility (Thomsson, 2010). Another advantage of using the WEIS-questions was that they are based on the MOHO theoretical framework and definitions of the work environment. Additionally, the WEIS-questions have been found in earlier research to be effective in gaining participants' views on wide-ranging features of their workplaces (Williams, Fossey, & Harvey, 2010).

The researchers' pre-understanding may have had an influence on data interpretation and analysis (Studies II and IV), as suggested by Chiovitti and Piran (2003), and Corbin and Strauss (2007). However, the authors had different backgrounds in occupational therapy, psychology, sociology, and global health, and different competencies with regard to the IPS-approach and the methodologies used, which made it possible to challenge each other's interpretations. To further enhance the credibility in Studies II and IV, the article drafts were critically reviewed during occupational therapy research seminars at the university, and by an IPS-specialist (Study II) and an expert in the grounded theory situational analysis methodology (Study IV).

Dependability and transferability

To enhance the dependability in Studies II and IV, i.e. the reliability of the results (Graneheim & Lundman, 2004), an interview protocol was used. To allow readers to assess transferability to other settings, sample and setting characteristics were described (Studies II and IV). In addition, the positional map in Study IV was created, which reflected the results in relation to the Swedish context. For example, the opportunity to get subsidized manpower in combination with high employment taxes may have influenced the employers' readiness to open the door and can be assumed to be dependent on the Swedish context. The employers as a socially committed group, however, may reasonably be assumed generalizable to other national contexts, being as similar findings have been described in international studies of attitudes and characteristics of employers open to hiring people with disabilities (Gilbride et al., 2003; Ju et al., 2013). The Swedish context may also have affected the results in Study II. Only four participants had competitive jobs as a result

of the traditional pre-vocational rehabilitation system and its rules and regulations. It is possible that having an internship may have impacted on the level of work requirements and employer support, and the participants' perceptions of working.

Conclusions and clinical implications

This thesis adds to the knowledge base of how the IPS can be optimized in order to secure a more sustainable working career for the target group. The thesis has given the IPS-participants an active voice about what it is like to start to work in a Swedish context. Occupational therapy models have been used to discern and visualise the psychiatric disability in relation to work, as well as to the support and process in IPS, in a person, environment, and occupation perspective. The thesis has also highlighted the employers' experiences and views of being part of the IPS-network. The results can thus be said to have helped to concretize and articulate what is embedded in the support and process in IPS and thus in the delivery of the eight IPS-principles. In conclusion, the organization of the IPS, and the articulation of the support and process in IPS may be important to address in order to increase job-tenure and employment success among IPS-participants. The clinical implications for the employment specialist, occupational therapists, or other personnel who deliver IPS are thus to:

- have a holistic and dynamic view on the client's work performance in relation to the interaction between the person, the environment, and the occupations or work activities being performed.
- use an empowering approach and build the support on the clients' own strategies, in line with his or her preferences and choice.
- use the person, environment, and occupation perspective, and thus the PEO-model as a systematic approach for the evaluation of the client's support needs, and as a means of more clearly communicating the client's disabilities and accommodation needs to different people in the IPS-network.
- provide for an optimal PEO-match, pre- and at-work, by including the client's preferences, skills, and impairments (P), as well as a systematic workplace analysis on environmental (E) and occupational (O) characteristics. In particular, the match between the client's cognitive and social skills abilities, the complexity of the work task and the demands in the social work environment are important to address.
- perform work-accommodations by on- and off-worksites support according to an optimal PEO-match, by compensating and/or improving cognitive and social disabilities. It may be especially valuable to compensate for impairments in these areas by accommodating the social work environment.

- support the client to cultivate his or her worker role in relation to the demands in the work environment.
- be sensitive to the off-worksites support needs when the client has chosen not to disclose his or her illness at work, by operationalising the at-work PEO-match in order to make the client's own strategies tangible.
- provide for an adequate off-worksites support by working closely with the personnel in the mental health care team to support cognitive and social disabilities. It is thus vital to emphasize that the IPS in Sweden should become integrated with the mental health care teams, instead of only implementing IPS in to the vocational rehabilitation services in the municipalities, where a close collaboration with the teams has been shown difficult to achieve.
- systematically develop relationships with employers based on trust and professionalism.
- emphasize on provision of on-going on-worksites support also to the employers, and other employees, in order to prevent incidents that create negative feelings and stress.
- actively look for work opportunities where the employers have demonstrated experience and characteristics related to a willingness to hire people with mental illness.
- actively encourage, inform, guide, and support employers who have less experience with hiring and working with people with mental illness, as well as limited personal and economic resources.

Implications for further research

Based on the results of this thesis the implications for further research are to:

- corroborate by further research the findings in Studies II and IV, which were exploratory in nature. A larger sample and a different context would be applicable.
- investigate how the PEO-model can be used and operationalized, as a clinical tool, in the IPS and whether an active use of the model impacts on IPS effectiveness in terms of job-tenure.
- determine in a RCT design the effectiveness of using the PEO-model, where one group receives standard IPS and the other group receives IPS with the addition of an active use of the PEO-model and accommodations that specifically address cognitive and social disabilities.

- investigate how the IPS-participants cope with work in a longitudinal perspective, being as the IPS-participants perceived that their disabilities varied in relation to time they worked (Study II).
- investigate how to best organize and collaborate within the IPS-network over organizational boundaries, i.e. interagency collaboration.
- investigate further the collaboration between the employment specialist and the employer, as well as how the support provided in IPS is organized at work.
- explore the associations and causal relationships between *communication and interaction skills*, cognitive functioning, and vocational variables.
- confirm the association between *planning, reasoning and problem solving* and having competitive employment with other instruments and analysis methods.

Swedish summary/Svensk sammanfattning

Människor med långvarig psykisk sjukdom är en erkänt marginaliserad och stigmatiserad grupp i vårt samhälle idag och är generellt sedda som oförmögna att klara av ett arbete på den öppna arbetsmarknaden. Många känner ett stort utanförskap och upplever sig sakna möjligheter till delaktighet i samhället, t.ex. genom att ha rollen som yrkesarbetande. Arbete är emellertid ett viktigt mål och en stark önskan hos många av dessa personer. Inte minst eftersom arbete bidrar till återhämtning genom delaktighet i samhället, möjligheten till sociala relationer och ett fungerande vardagsliv. Med återhämtning vid psykisk sjukdom menas i denna avhandling en personlig process där individen strävar efter att hitta ett liv värt att leva trots de begränsningar som symptom och funktionsnedsättning ger. Arbete har också visat sig medföra minskade symptom, bättre självkänsla och livskvalitet, ekonomiskt oberoende samt ökad egenmakt. Trots att arbete är ett viktigt mål för många i gruppen och att arbete har påvisade positiva effekter är det få personer i gruppen som arbetar. Detta bidrar till att flertalet i denna grupp inte får möjlighet till full personlig återhämtning. I dagens Sverige utgör arbetslöshet och sjukskrivning bland människor med långvarig psykisk sjukdom en stor kostnad för både individen och samhället.

Som en del av regeringens strävan att inkludera denna grupp på arbetsmarknaden och bidra till dessa personers återhämtning har Socialstyrelsen fått i uppdrag att fördela statsbidrag omfattande 35 miljoner kronor per år 2011 till 2013 till kommunerna för försöksverksamhet med meningsfull sysselsättning för personer med psykisk funktionsnedsättning. Baserat på Socialstyrelsens "Nationella riktlinjer för psykosociala insatser vid schizofreni och schizofreniliknande tillstånd" håller därför just nu den evidensbaserade arbetsrehabiliteringsmetoden Individual Placement and Support (IPS) på att implementeras och testas i kommunernas rehabiliteringsverksamheter. IPS har visat sig vara den mest effektiva metoden att stötta personer med psykisk sjukdom att få och behålla ett arbete. Metoden bygger på åtta evidensbaserade principer och utgår ifrån ett återhämtningsperspektiv, vilket innebär att personer med långvarig psykisk sjukdom får stöd direkt att söka och behålla ett arbete baserat på egna val och preferenser utan omfattande bedömningar av arbetsförmåga eller arbetsträning. Detta i motsats till traditionell svensk stegvis arbetsrehabilitering, som bygger på ett medicinskt perspektiv, där personen tränas i flera steg innan han eller hon kan bedömas redo att söka ett arbete. Men trots att både

internationella och nationella forskningsresultat enhälligt visar att IPS är mer effektiv än sedvanlig traditionell stegvis arbetsrehabilitering blir inte alla fullt ut hjälpta av metoden. Ungefär hälften av IPS-deltagarna når inte ett arbete på den öppna arbetsmarknaden trots att de vill börja arbeta. Det är oklart varför inte alla blir hjälpta av metoden och varför en del som börjar arbeta inte behåller sitt arbete. Det finns således ett behov av arbetslivsforskning, som kan bidra med kunskap om vilka insatser som krävs för att främja varaktighet i arbete och en långsiktig karriär för personer med psykiskt funktionsnedsättning. Det finns idag ytterst lite arbetslivsforskning inom detta område. Detta kan bero på den höga arbetslösheten i gruppen, samt att personer med psykisk funktionsnedsättning är en stigmatiserad grupp och därför inte har erbjudits samma möjligheter till arbetsåtergång som andra grupper av personer med funktionsnedsättning. Forskning rörande IPS har dessutom främst fokuserat på arbets- och hälsorelaterade mått på gruppnivå och få studier har utförts på individnivå. Det är fortfarande oklart hur den psykiska funktionsnedsättningen påverkar möjligheten att få och behålla ett arbete, samt vilket stöd som ges i IPS över tid. Vidare behövs mer kunskap om hur IPS-deltagarna själva upplever sin arbetsroll och arbetsmiljö, samt arbetsgivarnas perspektiv.

De fyra delstudierna – syften, metoder och resultat

Avhandlingen består av fyra delstudier med det övergripande syftet att undersöka och synliggöra den psykiska funktionsnedsättningen som människor med långvarig psykisk sjukdom kan ha i relation till arbete. I detta ingick även att undersöka stödprocessen i IPS, samt att utforska arbetsgivarnas erfarenheter av och åsikter om att vara en del av IPS-nätverket. Avhandlingen tillämpar ett arbetsterapeutisk teoretiskt perspektiv för att förstå stödprocessen i IPS, vilket innebär att människan ses som ett öppet system som ständigt interagerar med sin omgivning genom utförandet av aktiviteter. Enligt detta perspektiv är det viktigt att individen och hans eller hennes preferenser, förmågor och funktionsnedsättning, samt omgivningens och aktivitetens krav, står i harmoni med varandra för att individen skall lyckas i sitt aktivitetsutförande.

Avhandlingens delstudier har utförts i relation till en randomiserad kontrollerad studie (RCT), som jämfört IPS med traditionell svensk stegvis arbetsrehabilitering och pågick under 18 månader för varje enskild deltagare. I studien rekryterades 120 deltagare, som uttryckte önskan om ett arbete på den öppna arbetsmarknaden, från sex psykiatriska öppenvårdsmottagningar i södra Sverige. Deltagarna var i arbetsför ålder (21-58 år), hade inte arbetat det senaste året och hade förmåga att kommunicera på svenska. Alla deltagare hade en långvarig psykisk sjukdom, var till största del diagnostiserade med schizofreni eller andra psykosdiagnoser, samt deltog i ett IPS-introduktionsmöte. Personer med fysiskt funktionshinder exkluderades. Avhandlingen bygger främst på datainsamling gjord i anslutning till IPS-

interventionen i RCT:n. Datainsamlingen för delstudie I och II gjordes under det första året när deltagarna började arbeta och delstudie III i samband med 18-månadersuppföljningen, medan datainsamlingen för delstudie IV gjordes efter att RCT:n hade avslutats.

Stödprocessen i IPS (I)

Syftet med delstudie I var att undersöka stödprocessen i IPS över tid i relation till ett person-, omgivnings- och aktivitetsmatchningsperspektiv. En multipel fallstudie-design användes för att följa fem IPS-deltagare som fått arbete under de första tolv månaderna av deras deltagande i RCT:n. Data samlades in relaterat till deras IPS-rehabilitering, arbete, vilka begränsningar de upplevde på arbetet och stödet som gavs. Insamlad data analyserades sedan med hjälp av "within- and across-case"-analyser.

Resultatet visade att stödprocessen i IPS bestod av stöd i arbetssökandet, matchning mellan individen och arbetet, samt justering av matchningen via anpassningar genom stöd på eller utanför arbetet. Arbetsspecialisten hade en central roll i att organisera och initiera detta stöd. Utöver detta skapade arbetsspecialisten även ett IPS-nätverk kring varje enskild deltagare baserat på hans eller hennes önskemål och behov. Detta nätverk kunde innefatta vänner, familj, personal från psykiatri och kommunen, samt arbetsgivare och kollegor med flera. Samtliga deltagare upplevde begränsningar socialt och i att hantera symptom samt stress. Många upplevde också begränsningar i att arbeta självständigt och att lära sig sina arbetsuppgifter. Flera olika typer av anpassningar både på och utanför arbetet användes för samma arbetsbegränsning. Det vanligaste sambandet var dock mellan begränsningar i att arbeta självständigt och stöd i arbetsutförandet. Analysen av matchning mellan individen och arbetet utifrån person-, omgivnings- och aktivitetsmatchningsperspektivet visade att anpassningarna gjordes till största del just i den sociala arbetsmiljön. Anpassningarna gjordes dock i alla tre sfärerna, d.v.s. den personliga sfären genom stöd till individen att hantera arbetet på egen hand, i omgivningssfären genom anpassning av den sociala och fysiska arbetsmiljön och i aktivitetssfären genom anpassning av arbetsuppgifterna. Analysen visade också att arbetslivserfarenhet efter insjuknandet, om IPS-deltagaren berättat om funktionsnedsättningen på arbetet och att inte vara i en akut fas av sjukdomen, hade stor betydelse för stödet som gavs samt hur väl individen lyckades på arbetet. Exempelvis, om deltagaren hade berättat om sina begränsningar på arbetet kunde arbetsspecialisten besöka arbetsplatsen i ett tidigt skede av IPS-processen och göra en utvärdering av arbetsmiljön och arbetsuppgifterna, samt initiera samarbete med arbetsgivaren. I dessa fall kunde också arbetsgivaren och kollegorna inkluderas i IPS-nätverket och ge stöd tillsammans med arbetsspecialisten på arbetsplatsen, vilket underlättade för deltagaren och ökade hans eller hennes möjligheter att lyckas på arbetet. Resultatet visade också att en bristande matchning under arbetssökandet var svår att justera med anpassningar. Hur stödet i IPS organiseras och ges till deltagaren kan ha betydelse för om deltagaren lyckas på arbetet eller inte.

Upplevelser av rollen som arbetande och arbetsmiljön (II)

Mot bakgrund av att delstudie I visade att deltagarnas arbetsmiljö hade betydelse för om IPS-deltagarna upplevde arbetsbegränsningar eller inte, och att anpassningarna gjordes till största del i den sociala arbetsmiljön syftade delstudie II till att undersöka hur IPS-deltagarna upplevde arbetet och hur de upplevde att arbetsmiljön inverkade på deras arbetsutförande. I denna studie intervjuades 19 IPS-deltagare, som fått ett arbete eller en praktikplats under första halvan av sitt deltagande i RCT:n, med utgångspunkt från ett intervjuformulär hämtat ur den svenska versionen av Work Environment Impact Scale (WEIS-S). Intervjuerna analyserades sedan med kvalitativ innehållsanalys.

Resultatet visade att IPS-deltagarna strävade efter att passa in i arbetssituationen genom att försöka hantera omgivningens krav och anpassa sig till rollen som arbetande, vilket också utgjorde det övergripande temat i deras berättelser. Trots att de upplevde att den psykiska funktionsnedsättningen påverkade deras förmåga att utföra arbetet, upplevde de till största del det som positivt att börja arbeta. Många hade inte arbetat de senaste fem åren eller mer och upplevde därför arbetet som ett sätt att komma igång, bryta isoleringen och skapa nya relationer. Arbetet bidrog även till exempelvis ökad daglig struktur och distraktion från psykiatriska symptom. Arbetet upplevdes dock av några deltagare som att innefatta motstridiga upplevelser, som t.ex. att uppleva sig accepterad av sina kollegor och samtidigt uppleva sig exkluderad på grund av sin psykiska sjukdom. Deltagarna upplevde liknande begränsningar i arbetsutförandet som deltagarna i delstudie 1 med skillnaden att de upplevde arbetsbegränsningarna som varierade över tid, d.v.s. vissa minskade över tid, medan andra var varaktiga eller till och med ökade över tid. Exempelvis, för många deltagare minskade upplevelsen av sociala begränsningar i takt med att de utvecklade sina sociala färdigheter på arbetet, medan vissa upplevde varaktiga begränsningar i att hantera den föränderliga arbetsmiljön där personer varierade, som i mötet med kunder. Vissa deltagare upplevde också varaktiga kognitiva begränsningar i att lära sig arbetsuppgifter på grund av svårigheter att koncentrera sig och komma ihåg arbetsinstruktioner och arbetsrutiner. För att hantera sin sjukdom och sitt arbete använde samtliga deltagare egna strategier, vilket innefattade att acceptera sin sjukdom, ha rätt attityd till arbetet, planera och organisera arbetsuppgifterna, samt att balansera sociala strategier (exempelvis att be om hjälp eller inte). IPS-deltagarna upplevde också både stöttande och hindrande faktorer i sina arbetsmiljöer, vilket innefattade arbetsgivaren stöd, den sociala atmosfären bland kollegor, samt arbetsuppgifternas krav. Sammanfattningsvis visade resultatet av denna studie att det är viktigt att utgå ifrån individens egna strategier vid planering av stödet i IPS, samt utveckla fungerande samarbetsrelationer med arbetsgivare och att optimera matchningen mellan individens förmågor och omgivningens krav.

Kognitivt fungerande, kommunikations- och interaktionsfärdigheter och arbete (III)

Mot bakgrund av resultatet av delstudie I och II, där kognitiva funktionsnedsättningar och nedsättningar i social förmåga identifierades, var syftet i delstudie III att utforska sambandet mellan deltagarnas kognitiva fungerande, kommunikations- och interaktionsfärdigheter, samt arbetsutfallet, d.v.s. om deltagaren fått ett lönearbete eller inte, timmar och veckor i arbete, samt månadsinkomst. Denna tvärsnittsstudie inkluderade samtliga deltagare som var kvar i studien vid 18-månadersuppföljningen och som samtyckte till att delta. Denna studie inkluderade således både deltagarna i gruppen som fick IPS och deltagarna i gruppen som fick traditionell svensk stegvis rehabilitering ($n=77$). Samtliga testades med ett kognitivt testbatteri. Tjugonio ($n=29$) av deltagarnas kommunikations- och interaktionsfärdigheter i olika sociala situationer på arbetet observerades och bedömdes också med hjälp instrumentet Bedömning av kommunikations- och interaktionsförmåga. Det var inte möjligt att inkludera dem som inte hade berättat om sin diagnos eller funktionsnedsättning på arbetet och därför inte hade några stödinsatser på arbetsplatsen.

Resultatet av den kognitiva testningen visade att förmågan att planera, resonera och att lösa problem bäst förklarade om deltagarna fick lönearbete eller inte. Utöver högre poäng i planering, resonerande och problemlösning hade deltagarna som fått arbete vid 18-månadersuppföljningen också högre poäng när det gäller visuellt korttidsminne jämfört med dem som inte arbetade. Vidare var förmågan att planera, resonera och att lösa problem relaterat till fler arbetade timmar och veckor. Resultatet av den kognitiva testningen visade också att ett bättre långtidsminne hade ett samband med en högre inkomst. När det gällde bedömningen av deltagarnas kommunikations- och interaktionsfärdigheter på arbetet visade sig bättre sociala färdigheter vara förknippat med samtliga arbetsmått, d.v.s. deltagaren fick arbete i större utsträckning, arbetade fler timmar och veckor, samt hade högre inkomst. Bättre kommunikations- och interaktionsfärdigheter visade sig också vara förknippat med ett bättre långtidsminne. Resultatet av delstudie III visar att det är viktigt som en del av stödet i IPS att anpassa för kognitiva och sociala arbetsrelaterade begränsningar.

Arbetsgivarnas erfarenheter och åsikter (IV)

Mot bakgrund av att arbetsfältet inom IPS skärpt sitt fokus på arbetsgivarna genom att lägga till en åttonde IPS-princip, "Systematisk jobb-rekrytering, samt skapa relation med arbetsgivare" och att arbetsgivarnas betydelse för stödet i IPS framkom i både delstudie I och II, var syftet med delstudie IV att belysa arbetsgivarnas erfarenheter av och åsikter om att delta i IPS-nätverket och att ge arbetsplatsstöd, samt att ta sig an en IPS-deltagare som anställd eller praktikant. Med grundad teori som metod genomfördes intervjuer med nio arbetsgivare med dessa erfarenheter. Datainsamling och analys skedde parallellt och arbetsgivarna inkluderades gradvis i studien tills materialet ansågs mättat. Som komplement till grundad teori användes situationsanalys för att belysa arbetsgivarens situation i ett samhällsperspektiv.

Samtliga arbetsgivare visade sig vara socialt engagerade, vilket också blev huvudkategorin i den processmodell som skapades för att beskriva arbetsgivarnas erfarenheter och åsikter. Stegen i processen handlade om att 1) IPS var avgörande för att deltagaren kom ut på arbetsmarknaden 2) vara redo att öppna dörren 3) erbjuda arbete 4) delta i IPS-nätverket genom att ta bort hinder i arbetsmiljön 5) uppnå målet och 6) att känna sig stolt och samtidigt ha negativa upplevelser. Sammanfattningsvis framkom att arbetsgivarna upplevde IPS som "ett nyckelhål" till arbetsmarknaden som möjliggjorde för IPS-deltagarna att komma ut i arbetslivet. Att arbetsspecialisten gav ett trovärdigt och professionellt intryck samt stödet i IPS beskrevs som avgörande för om de skulle våga ta sig an individen. Vidare framkom att arbetsgivarnas personliga egenskaper, åsikter och erfarenheter gjorde dem redo att öppna dörren för IPS-deltagarna, erbjuda arbete eller praktikplats och delta i IPS-nätverket. De såg olikheter som berikande och hade tidigare erfarenhet av att möta människor med psykisk ohälsa eller i sårbara situationer. De hade också negativ erfarenhet av den traditionella svenska stegvisa rehabiliteringen och ansåg att arbete är livsnödvändigt, samt att arbetslöshet och sjukskrivning är negativt för en persons hälsa och välbefinnande. Vidare hade de en tilltro till personer med psykisk ohälsas potential som arbetande individer. Yttre omständigheter som företagets ekonomi kunde dock begränsa deras möjligheter att ta sig an en IPS-deltagare och att ge ett adekvat stöd. Studien visade också att arbetsgivarna hade olika mål med att ta sig an en IPS-deltagare. Vissa arbetsgivare öppnade upp sin arbetsplats helt baserat på "goodwill" och lät deltagaren vara där utan några krav. Andra såg situationen som en "win-win"-situation där arbetstagaren fick arbetslivserfarenhet samt referenser, och arbetsgivaren fick gratis arbetskraft då en praktikplats finansierades av det svenska välfärdssystemet, medan andra hade målet att få en produktiv anställd och anställde individen baserat på meriter på samma villkor som andra. Vidare framkom också att deltagandet i IPS-nätverket gav känslor både av stolthet av att kunna bidra till en människas utveckling, känslor som ökade arbetsgivarens sociala engagemang, och negativa känsloupplevelser, som t.ex. frustration orsakad av en ökad arbetsbelastning eller konflikter bland anställda. Resultatet av delstudie IV visar på vikten av ett ömsesidigt samarbete mellan arbetsgivaren och arbetsspecialisten, baserat på tillit och professionalitet, och att arbetsspecialisten ger arbetsgivaren adekvat stöd.

Avhandlingens kunskapsbidrag

Sammanfattningsvis bidrar denna avhandling med kunskap om hur stödet i IPS kan utformas, så att fler deltagare får och behåller ett arbete på den öppna arbetsmarknaden. Detta genom att bidra med ökad kunskap om den psykiska funktionsnedsättningen i relation till arbete, hur IPS-deltagarna upplever sin arbetsroll och arbetsmiljö, stödprocessen i IPS, samt arbetsgivarnas perspektiv. Vidare har avhandlingen även gett ökad kunskap om hur arbetsterapeutiska teoretiska modeller

kan användas för att belysa den psykiska funktionsnedsättningen i relation till arbetsmiljön samt arbetsuppgifterna. Sammanfattningsvis visar avhandlingen att hur stödet i IPS organiseras och ges till individen kan ha betydelse för om IPS-deltagaren lyckas få och behålla ett arbete. Det är dock viktigt att genom forskning fortsätta öka kunskapen om vad det innebär att arbeta med en psykisk funktionsnedsättning och hur rehabiliteringspersonal och samhället tillsammans kan agera för att främja varaktighet i arbete och en långsiktig karriär för denna grupp individer. Vidare är det viktigt att reflektera över att den psykiska funktionsnedsättningen inte är den enda troliga faktorn som kan inverka på en person med psykisk funktionsnedsättnings möjlighet att få och behålla ett arbete. Andra faktorer har också visat sig ha betydelse, som arbetsgivarens attityd och den sociala atmosfären bland kollegor (delstudie I, II och IV). Forskning behövs rörande dessa kontextuella faktorer och dess inverkan, samt hur den psykiska funktionsnedsättningen och dessa faktorer tillsammans påverkar en individ med psykisk ohälsas möjligheter till arbete och en långsiktig yrkeskarriär.

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