Spending my time- Time use and meaningfulness in daily occupations as perceived by people with persistent mental illness

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Abstract
Engagement in daily occupations, especially those perceived as meaningful, is essential for health and well-being. According to evaluation reports, many individuals with persistent mental illness seem to lack meaningful everyday occupations. The aim of this thesis was to investigate possible relationships between occupation, operationalised as time use and daily rhythm in daily activities, among individuals with persistent mental illness and relationships to different aspects of well-being, and identify sociodemographic and clinical risk factors for any imbalance in daily activities. A further aim was to investigate perceived meaningfulness in daily occupations, with a specific focus on work. The thesis is based on four studies. Studies I–III were based on a randomised sample of 103 participants from a psychiatric outpatient unit, and Study IV included 12 participants that were interviewed about perceived meaningfulness in their work. The results showed that spending much time in activities in everyday life, especially in work and other productive activities, and having a beneficial daily rhythm were associated with several factors of well-being. Spending much time asleep, especially at daytime, was associated with worse well-being. Among the risk factors for imbalance in daily activities was having high levels of general symptoms, which explained most of the risk of spending short periods in work/education, having an abnormal time asleep and an adverse daily rhythm. Further, having a diagnosis of schizophrenia meant an increased risk of spending little time in daily activities.

Being occupied per se, as well as having organised activities and routines, was perceived as meaningful and generated a feeling of occupational balance. Further, social life and a feeling of being needed by others was the aspect of meaningfulness most frequently reported in everyday life. Other aspects of meaningfulness in daily occupations were enjoyment, a sense of achievement and doing occupations to take care of oneself to maintain health. Work, in terms of employment, was perceived as meaningful since it had certain unique characteristics, gave structure to the day, a feeling of normality and acceptance, a balanced everyday life, and increased well-being. However, it was important that the demands at work and the individuals' interests and skills were well matched. A tentative model was suggested, integrating these aspects of meaningfulness in work.

Key words: Persistent mental illness, time use, daily activities, meaningful occupations, work, occupational balance, imbalance, well-being and mental health

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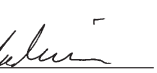
Signature  Date April 22, 2008

Between what is known, felt and what is seen.
Between the lines and between the points,
that could have been sore.
Between the answers,
if the questions are understood.
Life is a journey.
Thank you for the ride, this way.

Leufstadius, 2008.

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Förord

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Contents

List of Publications

This thesis is based on the following studies referred to by their Roman numerals:

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Christel Leufstadius

Introduction

This thesis focuses on an investigation of how people with persistent mental illness (PMI), defined as people with a severe and/or persistent mental or emotional disorder that seriously impairs their functioning in daily living (Allness & Knoedler, 1998), spend their time in daily occupations and how they perceive their well-being and the meaningfulness linked with their daily occupations. How people with persistent mental illness spend their time and how they perceive their daily occupations are major concerns since there is a belief that occupation and well-being are related phenomena. There is a core assumption in occupational therapy that engagement in meaningful occupations and a balanced occupational life with individually adjusted time spent in work, play, rest, and sleep could promote health and well-being (Christiansen, 1996; Law, Steinwender & Leclair, 1998; Meyer, 1922/1977; Wilcock, 1998a, 2005). However, occupation is a complex phenomenon, with several components and dimensions interacting in the stream of time. So far, research has shown that many people with persistent mental illness have difficulties in performing and organizing their daily occupations in a satisfactory way. They often sleep a lot and spend their time at home alone, and have few meaningful occupations during the day (Aubin, Hachey & Mercier, 1999; Bejerholm & Eklund, 2004; Chugg & Craik, 2002; Crist, Davis & Coffin, 2000; Farnworth, 2003; Hayes & Halford, 1996; Weeder, 1986) which can affect their perception of their health and well-being negatively. It has also been shown that engaging in occupations in general, and particularly in occupations perceived as meaningful, decrease the severity of symptoms and promote well-being (Bejerholm & Eklund, 2006; Craik & Pieris, 2006; Emerson, Cook, Polatajko & Segal, 1998; Goldberg, Britnell & Goldberg, 2002; Mairs & Bradshaw, 2004; Mee

& Sumsion, 2001; Mee, Sumsion & Craik, 2004). Eklund, Hansson and Ahlqvist (2004) showed that people with PMI who were employed seemed to be more satisfied with their daily occupations than individuals attending activity centres or having no structured occupations during the day. Several studies have also indicated that work is perceived as meaningful among persons with PMI and seems to constitute the type of activity with the most impact on perceived health, well-being, and social inclusion (Bell & Lysaker, 1997; Eklund *et al*., 2004; Evans & Repper, 2000; Gahnström-Strandqvist, Liukko, & Tham, 2003; Hoffman & Kupper, 2002; Honey, 2004; Kirsh, 2000; Provencher, Gregg, Mead & Mueser, 2002; Strong, 1998). That there is a relationship between occupation and well-being is well established. However, human occupation is a multifaceted and complex phenomenon, involving an interaction between the person with his or her personal skills and limitations, the occupation that is to be performed and the different environmental factors. Occupation may be investigated from different perspectives such as the actual doing, the time spent on certain activities, or the subjective experiences gained from carrying out an occupation.

It has been reported in an evaluation of the psychiatric care system in Sweden (Socialstyrelsen, 2005) that many individuals with PMI desire to have more meaningful everyday occupations, and that many responsible authorities have not succeeded in providing sufficient options, such as work opportunities, daily activities at activity centres, clubs, or other meaningful occupations. Hence, there is an urgent need to develop these types of opportunities. Therefore, the occupational life of these individuals, in terms of time use and perceived meaningfulness, has to be further investigated in order to generate the knowledge required to offer adequate support in future rehabilitation services.

Living with persistent mental illness

Individuals with severe and persistent mental illness have been defined by the National Institute of Mental Health (NIMH) as being adults with a severe and/or persistent mental or emotional disorder that seriously impairs their functional ability in relation to primary aspects of daily life, such as personal relationships, living arrangements, or employment, but however, for whom long-term 24-hour care in a hospital, nursing home, or protective facility is unnecessary or inappropriate (Allness & Knoedler, 1998). In the present thesis, the shorter term persistent mental illness (PMI) will be used. Some examples of conditions that affect people with PMI are diagnoses of schizophrenia and affective disorders. Because of their illness, people with PMI most often experience a disruption in their life which may have led to a reorganisation of their daily activities. Some aspects of their daily activities, in terms of work/education, play/leisure, self-care/self-maintenance, and rest/relaxation or sleep, may also be absent for shorter or longer periods in their life. Some individuals also describe a reorganisation of the self and their lifestyle due to illness (Nagle, Valiant Cook & Polatajko, 2002; Mezzina *et al*., 2006). Studies have revealed that negative symptoms, cognitive disabilities, and the side effects of medication (such as feeling tired or drowsy) restrict people with PMI from engaging in occupations and social life (Chugg & Craik, 2002; Hayes & Halford, 1996; Lundin & Ohlsson, 2002). Comorbidity is not unusual among people with PMI. Many individuals perceive decreased physical health in several areas, such as cardiovascular diseases and diabetes, and some individuals have some kind of drug abuse problem which complicates their functioning in everyday life (Chafetz, White, Collins-Bride, Nickens & Cooper, 2006; Socialstyrelsen, 2006).

Recovery is increasingly seen as an impor-

tant aspect of psychiatric disability and is regarded as an individual process of gradual improvement in functioning in different areas of daily life which builds hope and offers empowerment (Brown, 2001; Davidson *et al.*, 2005; Mezzina *et al.*, 2006). Further, social networks and social support have shown to be very important for the recovery process among individuals with PMI (Mancini, 2007; Topor *et al.*, 2006). When discussing the recovery processes, it is also important to consider that most people with PMI need to continue to take their prescribed medication to avoid new relapses of for example psychosis, since having several relapses has shown to be detrimental to psychosocial functioning (Eberhardt, 2007). Occupational engagement could contribute to recovery and enable these individuals to cope with their illness and manage their daily living (Boney & Stickley, 2008; Spandler, Secker, Kent, Hacking, & Shenton, 2007). Further, research has shown that many individuals with PMI can recover sufficiently, and that they then wish and are able to work or want to have other meaningful everyday occupations to a varying extent (Emerson *et al.*, 1998; Goldberg, Killeen & O'Day, 2005; Hoffman & Kupper, 2002). Concerning work and employment, it has been shown that factors contributing to vocational success and recovery are often connected to a good fit between the worker and the workplace (Kirsh, 2000; Woodside, Schell & Allison-Hedges, 2006). However, for some individuals paid work is not the primary goal due to the fact that work has been found to be too stressful or demanding in relation to their psychosocial functional level, and therefore they prefer other types of daily occupations, such as for example daily activity centres, clubhouses, or occupations at home (Kennedy-Jones, Cooper & Fossey, 2005). Thus, depending on the individuals' psychosocial functioning, their needs, and their recovery process, different kinds and amounts of daily occupations for the individual to choose between need to be available within psychiatric care and rehabilitation services in order to enhance well-being in this group.

Societal aspects of psychiatric care in Sweden

A sectorisation process in Sweden, with the objective of making outpatient service the cornerstone of psychiatric care was introduced in Sweden during the 1970s and 80s. Following this move the psychiatric care continued to change and develop during the 1990s with a new reform, leading to that the municipalities being given more responsibility for giving care and support to people with PMI, and their right to lead a life similar to that of the general population was emphasised (Markström, 2003). However, since the implementation of the mental health reform, several research reports and national evaluations have revealed that a large proportion of people with PMI live alone, are unemployed, have few structured and meaningful daily occupations, and seldom participate in social life (Bengtsson-Tops & Hansson, 2003; Bülow, Svensson & Hansson, 2002; Markström, 2003; Socialstyrelsen, 1999, 2005). Some individuals with PMI tend to be satisfied with a few structured activities during the day, while others reported a significant need and desire to have more activities such as work, studies, leisure, and social activities (Socialstyrelsen, 2005).

Society has also changed in many ways during the last decades. The tempo and stress in Western society has increased, especially within different work environments, and in general a large number of people now suffer from different stress symptoms and forms of depression (Christiansen & Matuska, 2006; Persson & Erlandsson, 2002; Zuzanek, 1998). Along with this, employment opportunities have decreased and the tempo, demands and skills required for employment have become higher. All of these circumstances have worsened the possibilities for people with PMI to

obtain and maintain an employment. Increased use of technology along with other factors, such as stigma or non-availability of care services, could lead to occupational deprivation, which is a state when external circumstances prevent a person from acquiring, using or enjoying occupation for an extended period of time (Fieldhouse, 2000; Whiteford, 1995; Wilcock, 1998a). Thus, the societal environment of today may be very demanding for individuals with persistent mental illness, and sometimes also offers too little stimulation and creates feelings of boredom. Both of these states can be perceived as stressful by the individual and therefore constitute a risk for occupational imbalance and decreased well-being. This must be acknowledged by those who work in todays psychiatric care when developing rehabilitation strategies aimed at supporting individuals with PMI in living an active, meaningful everyday life and participating in society.

Occupation

People as occupational beings is a topic with many dimensions, and what people do, and how, when, where and why they do it, is complex to understand and grasp. Occupations are what people do and are the means through which people survive, support themselves, develop, feel, relate to others, and shape their identities over time (Christiansen, 2005a). Occupation could be defined as chunks of daily activity that can be named in the lexicon of a culture, as proposed by Clark *et al.* (1991). Further, Kielhofner (2008), described occupation as "the doing of work, play, or activities of daily living within temporal, physical, and a sociocultural context that characterises much of human life" (p. 5). Thus, occupations have several dimensions and are characterised by being

a) Performed in different ways over time.
b) Divided into chunks of activities.
c) Categorised and named.
d) Possible to interpret concerning meaning, depending on a certain person's experience of it and the physical and socio-cultural life-world in which it is performed and experienced.

Several models within occupational therapy describe human occupation as a result of the dynamic interaction between three central elements: the person, the occupation, and the environment (Baum & Christiansen, 2005; Polatajko *et al.*, 2007). One of these models, the Canadian Model of Occupational Performance and Engagement (CMOP-E), focuses both on performance and engagement. Occupational performance is the actual doing and completion of the occupation, and engagement could be described as all the things that people do to become occupied and participate in everyday life. The CMOP-E model views the person as a spiritual being, and occupation as the bridge that connects the person with the environment, i.e. people act on the environment through occupation. Furthermore, the environment affords different occupational possibilities and each individual lives in a unique cultural, institutional, physical, and social environmental context (Polatajko *et al.*, 2007).

Since occupational performance is the outcome of the dynamic interaction between the person, the environment and the occupation, and connected to and dependent on the persons' life-story and life style (Persson, Erlandsson, Eklund & Iwarsson, 2001) it would be a great a challenge to investigate "the whole picture" of an individuals' occupations in daily life. Therefore, some demarcations have to be made for this thesis which will focus on the investigation of occupation from two perspectives. The first concerns occupation and temporal patterns, in which chunks of activities in everyday life and the time spent within these activities, are in focus. This is usually known as time use. The second perspective

will concentrate on perceived meaningfulness in the different daily occupations that people with PMI perform in everyday life, and a special emphasis will be put on individuals who are employed and their perceived meaningfulness in work. There is no consistent use of the terms occupation and activity in occupational therapy, but a distinction is made in this thesis between occupation and activity inspired by Pierce (2001). She proposed that the concept activity is a culturally defined and general class of human action that is held in the minds of persons and shared in their culture. The common sense meanings of different activities, such as work and cooking, enhance communication related to generalised categories of activity. Occupation, on the other hand, is defined as a specific individual's personal experience that is unique and non-repeatable, and occupation is always a subjective event in a certain perceived temporal, spatial, and socio-cultural environment. Thus, in the present thesis, when investigating time use in daily activity categories in relation to other factors, the concept of activity is mainly used, since these activities were categorised by the author and the informants' apprehensions were unknown. However, when addressing perceived meaningfulness, the concept of occupation is mainly used, since the perceived meaning in daily occupations reflects a subjective experience and is therefore considered to be a description of an individual's one-time experience of occupation within a unique spatial, social, and temporal context.

Health and well-being

When individuals engage in daily occupations their intrinsic needs can be met, which in turn can contribute to improved life satisfaction, happiness, and wellbeing (Wilcock, 2005). In WHO's definition of health (World Health Organisation, 1946) it was proposed that health is a state of physical, mental, and social well-being and that health is not merely the absence of disease. Further, the World Health Organisation (World Health Organisation, 1986) has linked well-being with everyday life, the opportunity for personal development, and with caring communities and has stated that health goals cannot be separated from other goals. The same report concluded that changing patterns of life, work, and leisure have a significant impact on health. Health and well-being can be viewed and explained in many ways, depending on if a humanistic or biological perspective is applied (Wilcock, 2005). The humanistic perspective is often concerned with the subjective and socio-cultural aspects of well-being, while the biological direction considers an individual healthy when his or her body and mind function, which is often assessed and rated by a professional according to a standardised norm (Eklund & Leufstadius, 2007; Medin & Alexandersson, 2000). Ryff (1989) proposed that well-being is composed by six dimensions: autonomy, personal growth, environmental mastery, purpose in life, positive relations, and self-acceptance. This definition is in accordance with another definition proposed in a exploratory study by Wilcock et al. (1998), who stated that "well-being is an individual perception of a state of happiness, physical and mental health, peace, confidence, and self-esteem that for many is associated with occupations, relationships, and environment" (Wilcock, 2005) (pp.147). In the present thesis, well-being will be investigated by focusing on subjective factors such as self-rated health, quality of life, self-mastery, and social interaction. Moreover, clinical factors, such as psychosocial functioning and symptom severity, will be included in order to reflect health as assessed by professionals.

Subjective health-related factors

Quality of life is regarded as an adequate outcome when progress of treatment is to be valued (Hansson, 2005), and most often the

perceived life satisfaction within different life domains is assessed. When people with PMI who participated in a needs assessment survey described problems affecting their perceived quality of life, over 50% stated that they had problems finding satisfying daily activities, and they meant that health problems, such as psychotic symptoms, concentration problems, and low physical health decreased their quality of life to a large extent. Further, when the participants were asked to prioritise factors that they thought could improve their quality of life, factors such as personal achievement, having a job, and more relationships with others were the three most prioritised (Cook, 1997; Mayers, 2000). Moreover, factors such as cognitive abilities and self-esteem have been hypothesised to exert a moderate direct relationship on well-being among people with PMI, such as people diagnosed with schizophrenia, and several studies have consistently demonstrated that self-esteem is significantly correlated to life satisfaction (Yanos & Moos, 2007). Self-mastery, i.e. a feeling of, and a belief that what happens in life are the consequences of one's own actions, is another health-related factor. Bengtsson-Tops (2004) suggested that high levels of self-mastery among persons with schizophrenia constituted an important indicator of empowerment and perceived well-being.

Social interaction

Participation in social networks has shown to be related to valued and satisfying occupations (Eklund, 2006). Research has also shown that the presence of family and friends is generally associated with better functioning in self-care and employment activities (Evert, Harvey, Trauer & Herrman, 2003). Social networks among people with PMI are often small, especially among persons with schizophrenia. Some factors contributing to the impoverishment of the social networks are the positive and negative symptoms that these individuals have to cope with and their illness reduces the number of their social arenas, which often result in that the social network often consists of other individuals with PMI and staff (Bengtsson-Tops & Hansson, 2001; Eklund & Hansson, 2007). Furthermore, a study demonstrating that having had a first episode of psychosis (FEP) was associated with depressive symptoms, and when negative or insufficient social interaction was taken into account, the association between having been a FEP patient and depressive symptoms disappeared. Instead, social interaction explained most of the variance in depression (Forsell, Levander and Cullberg (2004). Thus, satisfying social interaction is very important among people with PMI. Eklund and Hansson (2007) suggested that in order to promote the establishment of a social network, interventions in psychiatric care ought to be directed towards strengthening the individuals' mastery of their life situation and their sense of self, which could be accomplished in interventions such as occupational therapy and social skills training.

Clinical factors

In order for an individual to be able to perform daily occupations, it is necessary that there is a match between the desired activities, the environment, and the individual's skills (Christiansen, 2005a; Homa, 2007; Velde & Fidler, 2002). Individuals with a psychosocial dysfunction may have difficulties in achieving this. The skills of an individual are influenced by, among other things, diagnosis, the kinds of symptoms he or she has to cope with in everyday life, and side effects of medication. Psychiatric symptoms tend to vary both over time and between individuals with PMI, and can be clustered and described in terms of positive, negative, depressive, and general symptoms (Overall & Gorham, 1962). Examples of positive symptoms are conceptual disorganisation, hostility, and hallucinatory

behaviour, added to the individuals' behaviour and perception, while negative symptoms more refer to lack of behaviour and include emotional withdrawal, poverty of speech, blunted affect, lack of motivation, and social withdrawal. General symptoms consist of signs of anxiety, self-blame, unusual thought content, somatic concerns, and difficulties in cooperating with others, and depressive symptoms are characterised by despondency in mood, hopelessness, pessimism, and sadness (Overall & Gorham, 1962; Sadock & Sadock, 2003). Positive and negative symptoms are common symptoms among persons with schizophrenia, and it has been proposed that especially negative symptoms influence the individual's time use in daily activities (Andreasen & Olsen, 1982; Austin, 2005; Bejerholm & Eklund, 2007; Sadock & Sadock, 2003).

People with a diagnosis of schizophrenia constitute about 0.8% (70,000) of the population in Sweden (Socialstyrelsen, 2003), and are therefore an important group among those with PMI. Further, Henry and Coster (1995) described that individuals with psychoses, such as schizophrenia, had poorer social and occupational functioning and greater symptom severity than those with affective disorders. Symptoms differ from time to time, and thereby people's functioning in daily life can vary between different time periods (Liberman, Neuchterlein & Wallace, 1982). Those diagnosed with bipolar disorder form another important group with PMI and have to live with an alternation between episodes of mania, depression and sometimes a mixture of the two, and the disorder significantly influences their well-being (Dean, Gerner & Gerner, 2004). A recent study investigating self-reported care needs among individuals diagnosed with a bipolar disorder showed that one of the most frequently reported care needs was social functioning and how to cope with and be able to quickly detect early warnings signs to prevent mood destabilization and relapse (Goosens, Knoppert-van der Klein, Kroon & Achterberg, 2007).

Occupation in relation to health and well-being

Occupational therapy holds a core assumption that there is a relationship between engagement in daily occupations and well-being (Christiansen, 1996, 2005a; Law *et al.*, 1998; Wilcock, 1998a; Yerxa, 1998). Purposeful use of time has the potential to be both health maintaining and health regenerating, and the way in which individuals with a disability use and organise their time in daily life is considered to be a measure of their adaptiveness (Meyer 1922/1977). Concerning research about the relationship between occupation and well-being among persons with PMI, Bejerholm and Eklund (2007) found that a high level of engagement in occupation was associated with higher ratings of locus of control, mastery, quality of life, sense of coherence and fewer psychiatric symptoms among persons diagnosed with schizophrenia. Further, negative symptoms and internal locus of control were the variables that explained most of the variance in occupational engagement. Eklund *et al.*, (2004) investigated if competitive work or regular studies, as compared to other occupational groups (such as attending a community-based activity centre or having no structured occupations), was related to better perceived well-being, fewer psychiatric symptoms and better psychosocial functioning. The results showed that the group having work/studies during the day perceived higher satisfaction with their daily occupations and showed better psychosocial functioning than the other two groups, but there was no difference between the groups regarding different subjective aspects of well-being. However, research has shown that engagement in meaningful occupations tends to be significantly correlated with quality of life among people with PMI (Goldberg *et al.*,

2002). Considering these contradictory findings, Eklund and Leufstadius (2007) investigated "actual doing" and "perceptions of occupational performance" separately in relation to health and well-being among people with PMI. They found that perceptions of occupational performance, such as satisfaction with daily occupations and the occupational value perceived were consistently related to self-rated health, as well as to interviewer-rated health and functioning, while variables pertaining to actual doing showed weak or no associations to well-being. It is only recently that researchers have started to present evidence of findings that indicate a relationship between occupation and well-being among persons with PMI (Aubin *et al.*, 1999; Eklund, Hansson & Bejerholm, 2001) and more research is needed, operationalising occupation in different ways.

Occupational balance and time use

The notion of balance is central in the philosophical base of occupational therapy and Meyer (1922/1977) who worked within the psychiatric field advocated a balance between the big four, work, rest, play, and sleep, which people must be able to balance between, even under difficulty, in order to maintain and increase health and well-being. Since then, this core belief has been highlighted ever since by many researchers in occupational therapy (Backman, 2004; Christiansen, 1996; Rogers, 1983; Westhorp, 2003). Occupational balance could be defined as the way in which people satisfactorily organise the pattern of their daily activities, and balance occurs when the perceived impact of the occupations on one another is harmonious, cohesive and under control (Christiansen, 1996). Yerxa (1998) proposed that people need to create an individualised balance of a meaningful variety of occupations by discovering, developing and acting on their personal interests and by participating in the rules, habits and rituals of their cultures. Thus, occupational balance is generally viewed as an individual experience, and this often makes the phenomenon difficult to quantify or assess (Backman, 2004; Pierce, 2003). Some researchers have explored occupational balance by investigating the person's perceived balance (Backman, 2001; Christiansen & Matuska, 2006; Håkansson, Dahlin-Ivanoff & Sonn, 2006; Jonsson & Persson, 2006), while others refer to a balance between time spent in different activity categories, such as self-care, work, play, and rest measured in time (Christiansen, 1996; Farnworth, 2003; Kielhofner, 1977; Rogers, 1983). Researchers need to address both of these perspectives in order to grasp the phenomenon occupational balance. Since studies among persons with PMI have shown that they spend much time devoted to sleep, have few meaningful occupations, and seldom are employed, it seems highly relevant to further deepen the knowledge of how they spend their time in different activity categories, the time use pattern forming their daily rhythm, and how this is related to their well-being. Even though counting hours and minutes do not fully capture the concept of occupational balance, time spent in different activities could indicate a type of balance or imbalance present in their everyday life. Occupational imbalance has been defined as an individual or group experience in which health and quality of life are compromise due to either over or under- occupation (Christiansen & Townsend, 2004).

Time use in daily activities

Time use methodology, is often used when investigating how people organise their daily activities in order to achieve occupational balance (Backman, 2004). Time use in daily activities is of interest when studying individuals and their occupational life, and the patterns are built up by performed activities

and temporal dimensions such as duration, order, frequency, and repetition. The activities spread over a day, beginning with the morning routine and ending in the evening with going to sleep, is a familiar pattern that continues over a life-time for most individuals. Since its introduction, the mechanical clock has become a disciplining force in peoples' lives, and people in todays western society increasingly communicate duration and frequency of time spent in different activities and use calendars to organise their everyday life and its routines and rhythms (Seymour, 2003). There are several factors that influence how people organise the time they use for daily activities: environmental factors, such as the natural cycle of darkness and light, seasons, cultural traditions and social rules (Christiansen, 2005b; Epstein & Kalleberg, 2001; Pierce, 2003), socio-demographic factors, like age, gender, family, and living situation (Jonsson, Borell & Sadlo, 2000; Singleton & Harvey, 1995; Zuzanek & Manell, 1993), work status and other role expectations, and the persons' ability to perform different activities in everyday life (Christiansen, 2005b; Epstein & Kalleberg, 2001; Pentland & Mc Coll, 1999).

A number of different forms for studying time use have shown good validity and reliability. The most common method used is the yesterday activity diary, often performed or supplemented with an interview that functions as a check for consistency and completeness and to ensure that there are no gaps in the reported data (Robinson, 1999). Studies of time use in daily activities have used different ways of categorising the activities, although these are quite similar between different cultures (Harvey, 1999). Also from a societal point of view, self-care or self-maintenance is necessary for survival and to meet basic needs. Work and other productive activities are performed in order to support oneself and others, and the worker role is often described as being closely linked to one's identity. Leisure and play activities are characterised by freedom of choice, enjoyment and self-development and the category of sleep is an activity with a restorative function that is necessary for health and well-being (Christiansen, 2005a). The classification of activities proposed by Llorens (1991), namely work/education, self-care/self-maintenance, play/leisure, and rest/relaxation, might be particularly relevant for people with PMI, since it includes rest and relaxation (Nurit & Michal, 2003). These are important issues for individuals who have a psychiatric disability (Chugg & Craik, 2002; Nagle *et al*., 2002).

Daily rhythm – A pattern of daily time use

The temporal patterns form an important aspect of daily occupations. During the course of a day, a person goes through periods of higher and lower levels of activity, attention and arousal i.e. individual rest-activity cycles. These rhythms are circadian (around the day) and chronobiological by nature (Gallew & Mu, 2004; Pierce, 2003). People most often structure their daily occupations in such a way that a balance between the light-darkness cycle and the rest-activity cycle is maintained during the 24-hr day (Larson & Zemke, 2003; Moore-Ede, Sulzman & Fuller, 1982). Further, individuals most often arrange their activities and daily rhythms according to the mechanical clock, and these rhythms also function as a type of social coordination of activities in society (Epstein & Kalleberg, 2001; Larson & Zemke, 2003). Some of the daily activities that individuals perform often function as a type of environmental and social time-setters (zeitgebers), like for instance, work-schedules, meal-times, family life and other social appointments, and these activities help individuals to maintain a daily rhythm in everyday life (Christansen, 2005b; Zuzanek, 1998; Zuzanek & Smale, 1992).

Thus, for people with PMI, who may have few time-setters, maintaining a synchronized daily rhythm appears to be a rather big challenge. A disruption or disturbance within daily rhythms, called circadian desynchronisation, causes symptoms like fatigue, diminished performance, nervous tension and thereby decreased health (Christiansen, 1996; 2005b). The most common occurrence of this disturbance is jetlag. Also, winter depression is an example of a psychiatric disturbance tied to the circadian rhythms (Moore-Ede *et al*., 1982; Pierce, 2003; Terman, 1994). Extreme delay or disruption of circadian rhythms is often seen in persons with psychiatric illness and can be viewed as both a result of the illness and a contributing factor in the disease process. However, people are different and their individual rest-activity cycles may appear delayed or advanced, and as a result some people function at best when they awake early and go to sleep early (larks), and others prefer to wake up later and go to bed later (owls) (Buela, Caballo & Garcia, 1990; Pierce, 2003). Still, rhythms that mean circadian desynchronisation may have negative consequences for the individual with respect to health, well-being, and satisfaction with daily life. In the present thesis, it is assumed that a daily rhythm where the main part of activities is performed during day-time (6 a.m.–6 p.m.) and the main part of sleep takes place during the night (6 p.m.–6 a.m.), is preferable. Imbalance will be operationalised in two ways, as a loss of balance concerning time spent in the activity categories and as desynchronisation of an individual's daily rhythm.

Time use in daily activities and daily rhythm among people with PMI

Most recent time-use studies within the mental health area have focused on people with schizophrenia and have been descriptive (Bejerholm & Eklund, 2004, 2006), group comparisons between persons with a diagnosis of schizophrenia and general populations (Hayes & Halford, 1996; Krupa, Mc Lean, Eastbrook, Bonham & Baksh, 2003; Minato & Zemke, 2004b), or correlational studies relating time use in activity in relation to sociodemographic factors (Crist *et al*., 2000; Shimitras, Fossey & Harvey, 2003). Time-use studies focusing on daily activities during the 24-hour day have consistently shown that the predominant activities among individuals with schizophrenia were sleeping, eating, and personal care, and that their lives were often characterised by isolation, boredom, and lack of a daily structure and meaningful occupations (Bejerholm & Eklund, 2004, 2006; Crist *et al*., 2000; Farnworth, 2003; Krupa *et al*., 2003; Minato & Zemke, 2004b; Weeder, 1986). Younger people (18–24 years) have been shown to spend more time socialising than the older age groups (65 years and over). Women tend to perform more domestic activities than men (Bejerholm & Eklund, 2006; Shimitras *et al*., 2003), while men prefer activities outside their homes. Another study (Harvey, Shimitras & Fossey, 2002) revealed that those with schizophrenia who lived alone often reported more passive leisure time than those who were cohabiting. Some studies have indicated that cognitive dysfunction, such as e.g. difficulties in planning and organising an activity, and side effects of medication restrict people with PMI from engaging in occupations and social life (Chugg & Craik, 2002; Hayes & Halford, 1996). Even so, social life has shown to be highly valued among persons with schizophrenia, although the illness often prevents them from connecting with others (Nagle *et al*., 2002).

The only time use study found that has specifically addressed predictors of imbalance in daily activities was performed by Harvey, Fossey, Jackson and Shimitras (2006), who investigated time use among people with schizophrenia living in London in order to identify predictors for participation in occupations

and social inclusion. They found that younger age and shorter length of illness significantly predicted participation in vocational-related occupations and social activities. Older individuals and those who were living alone were more likely to participate in passive leisure activities, while symptoms were not predictive of participation in any occupation examined. To the best of this author's knowledge, no studies investigating the daily rhythm in relation to well-being among people with PMI seem to exist.

Thus, there is a lack of studies investigating possible relationships between the time spent in different activity categories and well-being, in terms of self-rated health, quality of life, mastery, and social interaction, and also of research concerning risk factors for having an imbalanced time use and daily rhythm. This warrants more time use studies among people with PMI. However, since people's daily occupations are containers of meaning (Polatajko *et al.*, 2007; Thompson & Bunderson, 2001) this also is in focus in this thesis.

Meaningful occupations

Perceived meaningfulness in occupation is important for an individual's satisfaction with his or her life, and for maintaining health and well-being. Experiences of meaning often guide the persons' occupational choices and way of living (Christiansen, 1999; Ikiugu, 2005; Jonsson & Josephsson, 2005; Persson *et al.*, 2001). Meaning can be viewed from a socio-cultural perspective, i.e. explaining meaning as socially constructed and as shared meanings within a culture, and also from an existential and spiritual perspective, focusing on the individual and his or her life-world. Especially in this latter perspective, meaningfulness is viewed as closely related to the individual's life-story, often organised in a narrative form (Jonsson & Josephsson, 2005; Kiefer, 2007). Closely linked to meaning is the concept of spirituality, which is central in the occupational model CMOP-E (Polatajko *et al.*, 2007). Unruh, Versnal and Kerr (2002) described spirituality and its linkage to meaning, occupation, and identity and stated that illness or different life crises may even engender a search for a new vision or revision of one's occupational identity. Hope and beliefs in life and participation in meaningful daily activities have shown to play a unique role in people's abilities to deal with unexpected life events, and to their ability to move forwards in a new direction after experiencing illness or trauma (Collins, 2006; do Rozario, 1994; Unruh *et al.*, 2002). Thus, the individual's spirituality is unique and imperative for the person's drive to be occupied (Jonsson & Josephsson, 2005; Townsend & Polatajko, 2007), and spirituality and meaning have been highlighted in mental health care because of the major role played by meaningful daily occupations in achieving more effective and lasting therapy outcomes (Corrigan, Mc Corkle, Schell & Kidder, 2003; Lloyed & O'Connor, 2007; Urbanowski & Vargo, 1994).

The definitions of meaningfulness and the way in which meaningfulness is measured vary. Every occupation has some kind of meaning (Hammell, 2004) or overall value (Christiansen, 1999; Persson, *et al.*, 2001) and can be perceived by a person as being positive, negative, or quite neutral. Meaningfulness is a positive experience that people often can express when they reflect on life and what they do in life. Ikiugu (2005) defined meaningfulness from an existential point of view and stated that it is a desire to create meaning and purpose in life, and it is the attractor that shapes an individuals' choice of occupations over time. Furthermore, he proposed that the nature of meaningfulness is personal, bound to one's identity, and that it enhances a person's sense of well-being and perception of his or her life as a whole, integrating the past, present and future. Another researcher, Hammell (2004), suggested four dimensions of perceived meaning in daily occupations:

Doing, including purposeful, goal-oriented activities, keeping busy, having a reason to get up in the morning, and contributing to others;

Being, defined as time taken to reflect, to be introspective or meditative, discovering oneself, appreciating nature, art or music in a contemplative manner, and enjoying being with special people;

Belonging, defined by Rebeiro, Day, Semeniuk, O´Brien, and Wilson (2001) as the necessary contribution of social interaction, mutual support and friendship, the feeling of being included, and the realisation that one's life has value for others as well as for oneself;

Becoming, a process reflecting an existential journey and the notion that people can envision their future selves, what they want to do, and what they wish to become.

This nomenclature builds very much on Wilcock's reflections (1998b), describing the dimensions of doing, being, and becoming as very important in the occupational therapy framework. Another theorist who has studied meaning is Antonovsky (1987), who declared that meaningful occupations foster the ability to make sense out of chaos. He found that when people find their everyday life tasks meaningful, comprehensible, and manageable, a sense of coherence arises which maintains their health and well-being. In the present thesis, meaningful occupation is viewed as a subjective and unique experience that can only be perceived and expressed by the individual who performs the occupation.

Meaningful daily occupations among people with PMI

Despite the intensions stated in the legislations and national reports in Sweden about the needs and rights that individuals with PMI have to meaningful occupations in their everyday life (SOU 2006:100; Socialstyrelsen, 2005), very little research seems to exist in this area. Individuals choose different occupations which have social, symbolic, cultural, and spiritual significance to them, and the meaning they bring cannot be separated from the person and his/her social, familial and cultural life contexts (Jonsson & Josephsson, 2005; Palladino & Schultheiss, 2006; Townsend & Polatajko, 2007). It is therefore valuable to investigate perceived meaningfulness within the actual cultural context in which people live. Swedish research about perceived meaningfulness among people with disabilities is scarce, especially regarding people with PMI. Among the few studies found, one focused on persons with PMI visiting a working cooperative showing that the visitors experienced meaning in occupations that contributed to their personal growth and experience of normalisation (Gahnström-Strandqvist *et al*., 2003). Bejerholm and Eklund (2006) found that people with a diagnosis of schizophrenia perceived a sense of meaning in terms of belonging when occupations were performed in a social environment including important social relationships. Meaning was also expressed in relation to activities such as taking care of a pet, and in recreational and productive activities that made the participants feel physically active or creative. Another study, focusing on occupational value, which is closely linked with meaningfulness (Persson *et al*., 2001), showed moderate to strong relationships between perceived occupational value and measures of health and well-being among individuals with PMI (Eklund, Erlandsson & Persson, 2003). In addition, a few international studies have investigated meaning in relation to well-being in the target group. Hvalsøe and Josephsson (2003) investigated meaningful occupations in a study employing a narrative approach among persons with psychiatric disability living in Denmark. The authors found three main constituents: engagement in occupations that facilitated the restoration and creation of the life-world towards normality;

engagement in occupations that brought some kind of intrinsic satisfaction and acknowledgement from others; and engagement in occupations that facilitated positive feelings and a sense of well-being. Aubin *et al*., (1999) found that meaning, in terms of competence, importance and pleasure in doing the occupations was positively correlated with subjective quality of life. Further, Goldberg *et al*., (2002) investigated meaningfulness of occupation in relation to quality of life and found that engagement in meaningful activities was related to satisfaction with life as a whole.

Work

Working and having an employment are highly valued in Western societies and most of people's adult life is shaped and built upon work and earning money for their daily living. Different activities can be categorised as work, depending on the taxonomy used. Traditionally, work has been defined as an activity required for subsistence and earning a living, i.e. paid employment (Christiansen, 2005a; Mosey, 1986), and in other categorisations, all productive activities are included, such as education, voluntary work, and household work (Primeau, 1995). In the present thesis, work is investigated from different perspectives, both as a broad concept, including all productive occupations such as employment, education, voluntary work and activities at a community-based activity centre, and as a more delimited concept, in terms of having an employment.

Productive activities may give structure and routines to the day, which is seen as very important among people with mental illness (Shimitras *et al*., 2003). Eklund *et al*., (2004) found that persons with PMI who worked or studied were more satisfied with their daily occupations than persons with PMI who were unemployed. Further, Arns and Linney (1993) argued that changes into more productive activities among persons with PMI, e.g. starting work or going to school, seemed to enhance feelings of self-efficacy. Concerning perceived meaningfulness in work, Honey (2004), Kirsh (2000) and Strong (1998) found that work, in terms of being employed, was frequently perceived as meaningful because the participants experienced that it had positive effects on health, self-esteem, structure, and economics. Work was also considered meaningful since it was found to be normalising and gave a feeling of contributing to the society. However, Swedish research investigating perceived meaning in work and in having an employment is sparse.

Rationale for the present thesis

As shown above, many people with PMI have difficulties in structuring their daily occupations and could be at risk of having an occupational imbalance, and they report a significant need and wish to have more meaningful occupations in their everyday life. Therefore, knowledge is needed about how time use in daily activities and daily rhythm among these individuals could influence their well-being. This understanding and knowledge is vital for clinicians when trying to assist people with PMI in planning and organising their everyday lives. The knowledge could also be used to develop new strategies for psychiatric rehabilitation. Further, research so far indicates that sociodemographic and clinical factors may influence time use, daily rhythm, and the ability to perform daily activities among individuals with PMI. However, no studies intending to identify risk factors for imbalance in time use patterns in daily activities and daily rhythm have been conducted using a Swedish sample. One of the purposes of the present thesis is therefore also to deepen the knowledge about how time use and daily rhythm are influenced by other factors, which is important for identifying people at risk of experiencing occupational imbalance, which

in turn is likely to affect their perceptions of well-being. This knowledge could be used to identify those in special need of occupational therapy interventions.

Meaningful daily occupation is considered important for people with PMI, and is incorporated into the Swedish legislation (SOU 2006:100). Meaningful occupations are also assumed to promote wellness and recovery. Despite this, research about perceived meaningfulness among people with PMI is scarce, and more knowledge is needed concerning the nature of perceived meaningfulness. This is especially true with respect to how meaningfulness may vary depending on the type of daily structure in terms of employment or not.

In this thesis a special focus will be put on those who are employed, since recent research has indicated that work seems to be a highly valued occupation for individuals with PMI, just as for others in society. Perceived meaningfulness in work among employed individuals with PMI is a vital thing to investigate for several reasons. Increased knowledge about meaningfulness in work in general is needed and could be used within rehabilitation for this group. The knowledge could also be implemented at sheltered or supported workshops and community-based activity centres, in order to enrich the occupations used within such units, so that they become more meaningful and valued by the visitors.

Aims of the thesis

The overarching aim of this thesis was to investigate possible relationships between occupation, operationalised as time use and daily rhythm in daily activities, among individuals with PMI and relationships to different aspects of well-being, as well as identifying sociodemographic and clinical risk factors for any imbalance in daily activities. A further aim was to investigate how individuals representing the target group perceived and described meaningfulness in their daily occupations, with a specific focus on work.

The specific aims were:

- To investigate time use in daily activities, in terms of work/education, self-care/self-maintenance, play/leisure, rest/relaxation, and sleep, among persons with PMI and to investigate how daily activities and the daily rhythm they form were associated with subjective health-related variables and social interaction (Study I).
- To investigate how time use in daily activities, operationalised as the time spent in the activity categories of work/education, self-care/self-maintenance, play/leisure, rest/relaxation, and sleep, as well as the daily rhythm they form, was associated with socio-demographic and clinical factors among people with PMI and further identify the strongest risk factors for imbalance in daily activities and daily rhythm (Study II).
- To investigate how people with PMI in three different groups, representing individuals with varying types of work status – a) open-market work or education, b) attending a community based activity centre, and c) having no or less than 10 hours per week of structured daily occupations – experienced and described the meaningfulness of their daily occupations (Study III).
- To investigate and illuminate how people with PMI, with various types of employment situations, perceived and described the meaningfulness of work (Study IV).

Material and methods

This thesis is based on two studies; a main project investigating daily activities in terms of time use and its relationship to health, well-being, and perceived meaningfulness in daily

occupations (Studies I–III), and an additional study investigating perceived meaningfulness in work among employed people with PMI (Study IV).

Selection of participants

The main project (Studies I-III) was based on a sample of individuals with PMI taken from a psychiatric outpatient unit and was a part of a larger project. The participants were selected from the register of a psychiatric outpatient unit in 2001, and the inclusion criteria were >2 years contact with the psychiatric services and aged between 20 to 55 years. These criteria were set in order to obtain a sample of working age individuals with persistent mental illness. Exclusion criteria were comorbidity of developmental retardation or dementia, being in inpatient psychiatric care, or being too confused or too ill to be able to participate in the project. This combination of inclusion and exclusion criteria was used to identify in all 401 individuals with PMI. The individuals were subsequently grouped into three strata representing daily activities with different types of occupational structure and work status. One group represented individuals with open-market work or education/training comprising of 10 hours per week or more. The second group represented individuals attending community-based activity centres for 10 hours per week or more. The third group represented individuals without regular and structured occupations, or occupations of less than 10 hours per week. These groupings were only used for analysis in Study III in the present thesis. The selection procedure is further illustrated in Figure 1.

The participants included were randomly selected from the three strata, until 35 participants from each group had agreed to participate. This number was based on power calculations according to Altman (1991), suggesting that 35 participants from each stratum would be sufficient to detect a moderate effect size with 80% power at $p<.05$. Two of the 105 participants had to be excluded from studies I–III after the data collection due to a diagnosis of learning disabilities, and one more participant was excluded in Study III due to incomplete data collection. Thus, the sample in Study I and Study II was finally composed of 103 participants, and Study III included 102 participants (Figure 1). An analysis showed that the individuals participating in the study were somewhat younger than the non-participants (39/42 years, $p=.021$) and also there were fewer women (45.6%/61%. $p=.04$). No differences between participants and non-participants were found regarding diagnoses, which were made according to ICD-10 (World Health Organisation, 1993) by the responsible psychiatrists. Further characteristics of the 103 participants are shown in Table 1.

In Study IV, contacts were taken with a psychiatric outpatient unit and two municipality teams in order to get in contact with people with PMI who were employed in open-market or supported employment. One community was located in a rural area and the other in an urban area. In the next step of the selection procedure, contact was taken with staff members at the units. They were informed about the purpose of the study and the inclusion criteria for taking part in the study, which were 1) being between 18 and 64 years old 2) having received treatment or support for the psychiatric disability 3) having been at their workplace for at least two months and 4) spending at least 10 hours per week at work. A heterogeneous group of 12 informants when concerning age, sex, duration of employment, type of work (blue collar/white collar) and employment conditions (supported/open-market) was selected. The selected participants were aged between 24 and 62 years, and the mean age was 44.5 years. They were seven men and five women, and the period during which they had worked at their present workplace varied between 6 months and 31 years. Eight of the informants

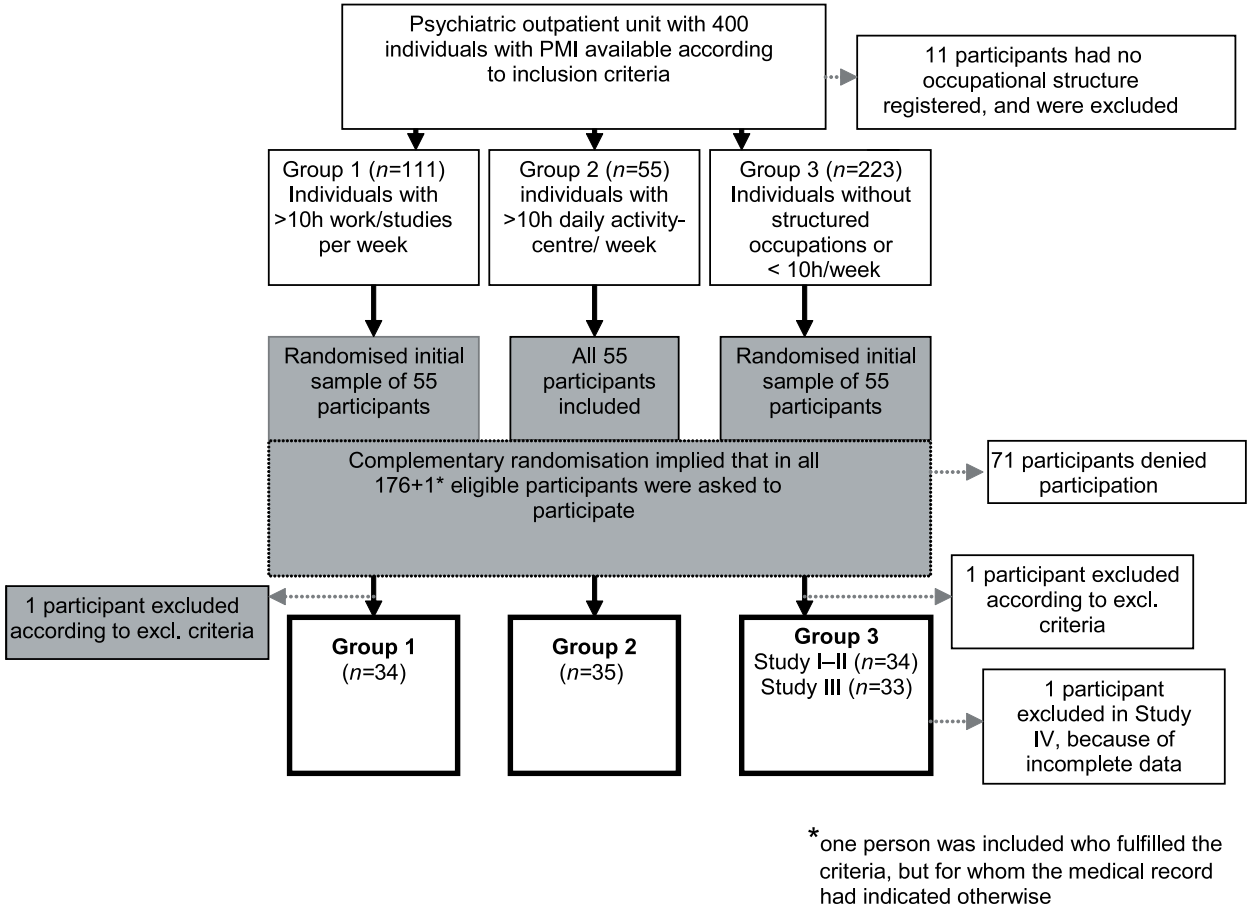

Figure 1. Selection procedure of participants, Studies I–III

Table 1. Demographic characteristics of the participants in the main project (Studies I–III) (*n*=103).

Characteristics	Number of subjects
Gender (male/female)	56 /47
Age	
Age group 20–33 years	33
Age group 34–42 years	38
Age group 43–55 years	32
Type of housing	
House	16
Own apartment	83
Sheltered living	1
Other	3
Living alone/ cohabitant	70/33
Education level	
Nine-year school	16
High school	35
University	52
Civil status	
Married	13
Not married	85
Divorced	5
Living with their own children	21
ICD-10 diagnoses	
F00–09 (organic mental disorders)	1
F20–29 (Schizophrenia, schizotypal and delusional disorders)	60
F30–39 (mood disorders)	18
F40–48 (neurotic, stress-related and somatoform disorders)	5
F60–69 (disorders of adult personality and behavior)	9
F80–89 (disorders of psychological development)	9
F90–98 (disorder of social functioning with onset in childhood or adolescence)	1
Duration since first contact with psychiatric services	
< 5 years	10
6–10 years	28
>10 years	65

Note. One participant was excluded in Study III, resulting in a total sample of 102 participants in that study

had a blue-collar job and four had white-collar jobs. Sex of the informants had been diagnosed with schizophrenia, one with bipolar affective disorder, one with depression and one with Asperger's syndrome. For three of the participants, the diagnosis was unknown or could not be retrieved.

Data collection

Time use and perceived meaningfulness in daily activities

A yesterday's activity diary was carried out as an interview with the participants which captured both the daily time use over the past 24 hours (Studies I–II) and the meaningfulness the participants attached to the daily activities performed during those 24 hours (Study III). This means that the participant is interviewed and asked to recall the previous day and the activities he or she performed during that period. The activity diary has been shown to be a useful instrument when studying daily activities and time use, especially when carried out as an interview (Bejerholm & Eklund, 2004; Erlandsson & Eklund, 2001; Erlandsson, Rögnvaldsson & Eklund, 2004; Lawton, 1999) and captures the daily activities in their natural temporal context during the specified period. Subjective data, such as perceptions of occupations and feelings, can also be collected using the diary (Harvey, 1999).

The activity diary used in the present thesis was divided into four columns and the interviewer asked the participants about: their performed activity, point of time, whether the activity was perceived as meaningful or not (yes/no), and comments about why, or why not, the performed activity was found meaningful. Since activities differ between weekdays, and weekends, especially when considering time spent in leisure and sleep (Zuzanek & Smale, 1992), the present study focused on activities undertaken on weekdays and data was therefore collected on weekdays Monday to Thursday. Time use measurement using an activity diary has shown to have good validity, and when comparing with another method, where the participant was beeped at certain time-points during a day and wrote down in a diary what he or she was doing, the correlation was 0.81 (Robinson, 1999). Another study showed general agreement of above 90% between a shadow-technique (one person observes and shadows the participant during the day) and the activity diary. Time diaries have also shown to produce reliable and replicable results with correlation rates of between 0.85 –0.95 (Robinson, 1999). To ensure the validity of the collected data, the participants each answered a question after the interview about how well the reported day represented a normal day. A scale graded from 5, "very well" to 1, "not at all" was used. Ninety percent gave ratings of three to five on this question (Mdn= 4.0), suggesting that the reported day represented a normal day.

Well-being

Self-rated health (Study I)

Self-rated health was assessed by means of the first item of the general health domain in the Swedish Short Form Health Survey (SF-36) (Ware & Sherbourne, 1992; Sullivan, Karlsson & Ware, 1994). The Swedish SF-36 has been tested for validity and reliability in several studies and has proven to be reliable in a non-English speaking country (Sullivan, Karlsson & Ware, 1995; Taft, Karlsson & Sullivan, 2004). Regarding item-scale internal consistency, all items of the General health scale exceeded 0.55 and the subscale as a whole surpassed the minimum reliability level of 0.70 (Taft *et al.*, 2004). The first question is formulated "in general, how would you say that your health is?" and is graded on a five point-scale from 1 "excellent" to 5 "poor" and this single item has been proposed as suitable for assessing global self-rated health (Bjorner *et al.*, 1996; Ware, 2000).

Quality of life (Study I)
In order to obtain a measurement of quality of life among the participants, the Manchester Short Assessment of Quality of Life (MANSA) (Priebe, Huxley, Knight & Evans, 1999) was used. The Swedish version has obtained satisfactory internal consistency (Björkman & Svensson, 2005). The MANSA is administered as a structured interview and measures satisfaction with different life domains, such as health, housing, and social relationships. The instrument consists of 16 questions, 4 of which investigate objective quality of life and 12 of which focus on subjective quality of life. The subjective aspects concern satisfaction with life as a whole and with different life domains, namely, work, financial situation, friendships, leisure activities, personal safety, sexual relations, family relations, and physical and psychological health. The items are rated according to satisfaction, from 1 = "could not be worse" to 7= "could not be better". The mean of the questions concerning satisfaction with different life domains was used in this thesis, as a measure of quality of life.

Perceived control (Study I)
The Self-mastery instrument (Pearlin, Menaghan, Lieberman & Mullan, 1981) was used to measure to what extent the participants saw themselves as being in control of the forces that affected their life situation. Assessments of self-mastery have shown to be positively correlated to optimism and a feeling of hope for the future (r=.71), and negatively correlated to depression (r=–.61) (Marshall & Lang, 1990). The instrument forms a seven-item scale with four rating alternatives, where four indicates the highest level of self-mastery. The Self-mastery instrument has been found to have good psychometric properties in terms of internal consistency (alpha=0.77) (Marshall & Lang, 1990). The mean value was used in this thesis for calculating self-mastery.

Social interaction (Study I)
The Interview Schedule for Social Interaction (ISSI) (Henderson, Duncan-Jones, Byrne & Scott, 1980) is an interview instrument assessing social interaction and the Swedish abbreviated version of the instrument was used in this thesis (Unden & Orth-Gomer, 1989). The scale covers the availability and adequacy of two dimensions, social integration and attachment, which means that four subscales are obtained. The ISSI also yields a total social interaction score, with a maximum score of 30. The ISSI-scale has shown to have good psychometric properties (Eklund, Bengtsson-Tops & Lindstedt, 2007). In the present thesis, the total score was used for calculating social interaction.

Sociodemographic factors

Sociodemographic data, such as age, sex, civil status, educational level, having children, and type of housing, were collected using a questionnaire, as was information regarding consumption of mental health care, such as the number of years since the first contact with psychiatric services (Studies I–III). In Study IV, socio-demographic data, such as age, diagnoses, duration of present employment, and type of work, were collected by asking the participant during the interview or asking their main contact person at the unit.

Clinical factors

Global psychosocial functioning (Study II)
In order to assess psychosocial functioning, the Global Assessment of Functioning (GAF) (Endicott, Spitzer, Fleiss & Cohen, 1976) was employed as a gross screening measure. GAF combines psychopathology (mainly symptoms) with social, occupational, and psychological functioning into a single rating. The assessment is made on a 100-point scale, divided into 10 equal intervals, where the two

intervals formed by 81–100 indicate positive mental health and not only absence of mental dysfunction. When making the assessment, the rater first selects the interval that best describes the participant's ability to function. Then the exact rating is determined in relation to how close the participant is to the adjacent intervals. The reliability and validity vary from acceptable to good in different studies (Söderberg, Tungström & Armelius, 2005).

Symptom severity (Study II)

Psychiatric symptoms were rated using the 18-item version of the Brief Psychiatric Rating Scale (BPRS) (Overall & Gorham, 1962; Overall, 1974). The assessment was based on an interview, during which the interviewer used specific guidelines and questions, and for which the interviewer received specific training. Both the verbal report and observation of the participants during the interview were considered in the assessment. BPRS uses a seven-point rating scale to assess symptom severity and the total score ranges from 18 to 126, higher scores indicating more severe symptoms. The symptoms may be grouped into sub-scales: general symptoms, depressive symptoms, negative symptoms, and positive symptoms, all of which were used for the present thesis. Good inter-observer and intra-observer reliability has been demonstrated, especially with specialised training and a structured interview guide (Crippa, Sanches, Hakkak, Loureiro & Zuardi, 2001).

Perceived meaningfulness in work

Data about perceived meaningfulness in work (Study IV) were collected using interviews. The interview was performed as a dialogue with the informant, and the interviewer used an interview guide with a few themes, namely

1) The person and his or her life world, such as values, roles, skills and motivation.
2) Work as part of everyday life.
3) Environment, e.g. family, friends, work-environment and society.
4) The informant's life-story, the past, the present and thoughts about the future.

Probing was used by the interviewer to deepen the conversation around different topics and in order to understand the informant's perspective, and the interviewer also summarised what had been said at various stages during the interview in order to obtain some degree of confirmation. The interviews lasted 45–60 min and were recorded in full using the MP3 technique. The interview guide used had after construction been discussed by a multidisciplinary team, which resulted in minor revisions of the first draft. It had been tested subsequently with two informants without PMI before the data collection, and no further need for revision was identified.

Procedure

The prospected participants for the main project (Studies I–III) were first sent a letter with information about the study, and a few days later an occupational therapist at the psychiatric unit contacted them by telephone and asked if they were willing to participate. If they agreed, a date was set for an interview. An experienced occupational therapist was engaged as a research assistant and carried out the data collection in a private room at the psychiatric outpatient unit. The socio-demographic data were collected before completion of the activity diary, and after the interview the other instruments concerning health, symptom severity, psychosocial functioning, social interaction, experience of control, and quality of life were performed and administered.

In Study IV, written and oral information explaining the nature of the study and that the interview would be recorded with MP3 technique was first given to the staff mem-

bers at the respective units, who subsequently approached eligible participants. The staff members informed the eligible participants about the study, both verbally and in writing,. The informants gave their consent in writing to the staff member and provided a telephone number at which they could be contacted after they had agreed to participate in the study. The interviews were performed by the author, who contacted each of the participants and made an appointment for the interview. Before the interview started, the interviewer gave repeated information about the study to ensure that the participant still agreed to participate. The interviews took place in a private room at the respective units or at the participants' workplace. An overview of the methods used in the present thesis (Studies I–IV) is shown in Table 2.

Ethical considerations

The local Research Ethics Committee approved the main project (Studies I–III) and Study IV was approved by the regional ethical review board in Lund, Sweden. All studies were performed in accordance with the principles of informed consent. When planning and performing the interviews in the second project (Study IV), some arrangements were made in order to facilitate for the participants to feel comfortable during the interview and to be able to give them support if needed. The interview took place in a familiar environment, and their primary contact person was available at the unit. All of the participants (Studies I–IV) were informed that they could discontinue the study at any time, and that declining to participate would not influence their access to rehabilitation. The participants were also told that the data collected would be treated confidentially and kept in a safety box.

Methods for analysing data

Time use variables

After the interview, the yesterday activity diaries were typed verbatim and the reported activities were categorised into five predetermined activity categories, inspired by Llorens (1991) but with some minor changes: a) the category sleep was categorised separately, since it is a vital human need and an important aspect of the daily rhythm, and b) household activities were categorised as self-care/self-maintenance. Thus, *self-care and self-maintenance* represented activities such as eating, dressing, cleaning the house, transportation, and making telephone calls. Activities pertaining to productivity, such as studying, going to a regular job, voluntary work, or attending a daily activity centre regularly, were categorised as *work/education* activities. Activities such as meeting friends, watching television, or hobbies were categorised as *play/leisure*. The two categories r*est/relaxation* and *sleep* were recorded as reported by the participants. Some expressions describing time use could not be categorised into the predetermined activity categories. These concerned periods of anxiety and counselling by verbal therapeutic contact, and both of which were very rarely reported.

When coding the diaries into time periods, the most common approach is to treat the 24-hour periods as the unit for analysis (Harvey, 1999). Another type of coding is to discern the periods morning (6 a.m.–12 noon), afternoon (12 noon–6. p.m.), evening (6 p.m.–midnight) and night (midnight–6 a.m.) (Harvey, 1982), time periods that also have been used for example when studying sleep-awake cycles (Moore- Ede *et al*., 1982). The time spent in each of the activity categories were in the present thesis categorised and summed into the following time periods in order to create different time spans:

Table 2. Selection of participants and methodology in the thesis.

Study	Participants	Data	Analysis
Study I	Randomized selection of 103 participants from a psychiatric outpatient unit Selection criteria: • age 20–55 years • >2 years contact psychiatric services	• Yesterday activity diary • SF-36, first item • Manchester Short Assessment of Quality of Life, (MANSA) • Interview Schedule of Social interaction, (ISSI) • Self-mastery scale	Statistical analyses with SPSS software, version 14.0: • Spearman's rank correlation test • The Kruskal Wallis test • Mann-Whitney U-test
Study II	See Study I	• Yesterday activity diary • Sociodemographic questionnaire and clinical interview • Global Assessment of Functioning, (GAF) • Brief Psychiatric Rating Scale, (BPRS)	Statistical analyses with SPSS software, version 14.0: • Spearman's rank correlation test • Mann-Whitney U-test • Logistic regression analysis
Study III	See Study I, (attrition of one participant)	• Yesterday activity diary	Content analysis
Study IV	Purposeful selection of 12 informants with PMI. Selection criteria: • age 18–64 year • employed at present work for 2 months • working 25% or more	• Interview with thematic interview guide	Qualitative content analysis

a) Diurnal period (6 a.m.– 6 p.m.)
b) Nocturnal period (6.p.m.– 6 a.m.)
c) 24-hour period

Further, the periods of self-care/self maintenance, work/education and play/leisure were summarised in order to define the total time devoted to these activities (TTA), while rest/relaxation and sleep were summarised to describe rest and sleep (RS). TTA and RS were calculated for the three time spans: the diurnal period, the nocturnal period and the whole 24-hour period, which resulted in another six variables. Thus TTA and RS together covered most of the 24-hour day, except for the minor amount of time use that was labelled as "anxiety" and "therapeutic contact/support," and not used in any further analysis. Twenty-five percent of the diaries were randomly selected and formed the basis for an inter-rater reliability check, between the first author and an independent researcher. The inter-rate agreement on the categorization of the selected diaries was 91%.

Groups of daily rhythm

In order to identify groups of individuals with different types of daily rhythm, the TTA diurnal variable and the RS nocturnal variable were dichotomized according to the median cut (Mdn TTA diurnal=540 min, Mdn RS nocturnal=450 min). These two dichotomized variables were combined and four groups emerged representing different types of daily rhythm. Group 1 with high diurnal time use within TTA and high nocturnal time use within RS was labelled the *balanced group*, since the activity/rest cycle was in line with the light-dark cycle. Group 2 represented the group with low diurnal time use within TTA and high nocturnal time use within RS and was denoted the *low-activity group*. Group 3 represented the group with high diurnal time use within TTA and low nocturnal time use within RS, and was labelled the *high-activity group*. Group 4 represented the group of individuals with low diurnal time use within TTA and low nocturnal time use within RS, labelled the *turned-around group*. These groupings were used in Study I. In Study II, the same time-use variables as in Study I were used. However, the four daily rhythm groups used in Study I were combined in Study II into two groups of daily rhythm. The balanced group and the high-activity group were combined and they formed a group called the *beneficial group,* in the light of the findings that these groups were associated with better mastery and social interaction in Study I (see Results). For corresponding reasons, the other two groups, the low-activity group and turned-around group, were combined to form the *adverse group*.

Statistics

The statistical analyses were performed using the SPSS software, version 14.0 for Windows. Non-parametric statistics were applied to the data since the test measures were based on ordinal scales. In order to decrease the number of dropouts, all assessments scales reflecting well-being and clinical factors where >75% of the items had been answered were included in the analysis, after imputation with the individual means. *Spearman's rank correlation test* was used to calculate relationships between the time-use variables and continuous variables (Studies I–II). *The Kruskal Wallis test* was used to analyse any differences between the four groups of daily rhythm on the different health-related variables and social interaction (Study I). When comparing the daily rhythm groups two by two, the *Mann-Whitney U-test* was used (Studies I–II). The *Chi-squared test* was used to compare the daily rhythm groups with regard to categorical variables (Study II).

Logistic regression analysis (Study II), was carried out in order to identify the sociodemo-

graphic and clinical variables that explained the variance in the time-use variables and the two daily rhythm groups. The participants were categorised into two groups regarding diagnosis. The first group ($n=60$) consisted of individuals with schizophrenia and other psychoses. The second group ($n=43$) was mixed and consisted mostly of individuals with mood disorders, neurotic disorders, Asperger's syndrome, and personality disorders. The other clinical variables were dichotomised at the median value. The age variable was divided into three age-groups: 20–33, 34–42, and 43–55 years. The time-use variable of work/education was dichotomised into, spending no time in work/education and spending certain time in work/education, and the time-use variable TTA was dichotomised according to the median cut. The time-use variable sleep was divided according to normal and abnormal amounts of sleep. The normal interval was set at 7 hours sleep +/–3 hours and the abnormal intervals fell below and above these limits. Regression analysis was carried out with the time-use and daily rhythm variables as dependent variables and was performed on those time use and daily rhythm variables that had shown to be statistically significantly ($p<.05$) associated with at least one socio-demographic or clinical variable. Independent variables included in the regression analyses were all variables showing a relationship with the dependent variable with a p-value <.10.

Content analysis

In the present thesis two studies (Studies III–IV) had qualitative designs. The methodological approaches differed, although they both aimed at investigating perceived meaningfulness in occupation. In Study III, the data consisted of activity diaries from 102 persons. In Study IV, interviews with 12 participants were performed. Although content analysis was applied for both of these two sets of data, the different collection methods required different types of content analysis depending on how data was created and collected and on the quality of the data. Content analysis is a method that can be fruitfully employed to examine virtually any kind of text data, and may focus on either quantitative or qualitative aspects of data, or both (Abrahamson, 1983; Babbie, 2002; Berg, 2004). The different types of content analysis may be viewed in relation to a continuum (Figure 2). On the one side there is the more manifest approach focusing on the surface structure, words and sentences that are physically present and countable, and on the other there is the latent approach focusing on the deep structure, extended to an interpretative reading and the symbolism underlying the data (Berg, 2004).

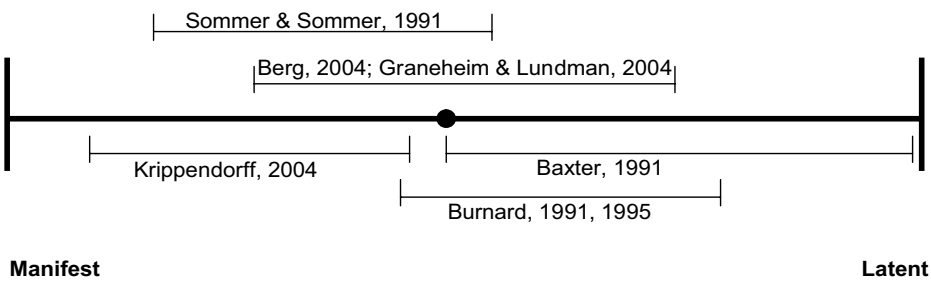

Figure 2. A continuum of approaches to content analysis.

In Study III, a content analysis method moving from a manifest to a latent level was used, inspired by Berg (2004), and Sommer and Sommer (1991). The data consisted of short statements about perceived meaningfulness in daily occupations, and therefore the manifest analysis was predominant. In Study IV, a more qualitative content analysis method was used, inspired by Burnard (1991) and Graneheim and Lundman (2004), since the data were richer and consisted of interviews performed as open dialogues that were tape-recorded and transcribed verbatim. Thus, the quality of the data allowed for a more inductive and qualitative analysis. The methods used are described in more detail below.

Content analysis in Study III

The initial data from the activity diary consisted of information on a) occupations performed, b) whether the occupation was perceived as meaningful or not (Yes/ No) and c) statements about why and in what way the occupation was meaningful. The respondents as a group reported 1435 occupations, out of which 1304 (91%) were identified as meaningful (Yes), 53 (3.7%) as not meaningful (No), and 78 (5.4%) were not commented on with regard to meaningfulness. Out of the 1304 meaningful occupations reported, 526 (40%) were accompanied by a statement noting why the occupation was perceived as meaningful. These 526 occupations and statements about meaningfulness were further analysed in the present study.

The manifest content analysis focused on elements such as words, sentences or sections, which were analysed, categorised and counted so that the frequency with which a given concept appeared could be reported in relation to the entire material (Berg, 2004). All statements concerning perceived meaningfulness were read several times, without knowing which occupation was being referred to. The purpose of this naive reading was to obtain an impression of the whole, without being influenced by the kind of occupation that had been performed. After reading the statements, they were coded. The code reflected the meaning that was expressed in the statement. After coding the statements, they were read several times together with their codes, with the intention of identifying categories. In the second step of the analysis, the occupations that the respondents had performed were added and used to further illuminate the statements about meaningfulness. The text was read several times in order to define the most comprehensive and non-overlapping categorisation. At this stage of the analysis, some statements (n=20 of the total 526) could not be categorised and were removed from the analysis. In all, 506 statements were included in the full analysis. Following completion of manifest analysis, a more latent content analysis focusing on the symbolic meaning and interpretation of the text was undertaken. The text was read several times in order to identify the main themes of meaningfulness. In order to increase the credibility of the study, the co-authors were involved in the analysis process at different stages in order to verify the emerging categories and themes. At the end of the analysis process, the statements in the different categories and themes were counted to establish how often they appeared in the three occupational groups.

Qualitative content analysis used in Study IV

Data from the 12 interviews were analysed with a qualitative content analysis (Burnard, 1991; Graneheim & Lundman, 2004), and with some inspiration from Taylor and Bogdan (1998) in the second step of the analysis. The transcripts were first read to get a sense of the whole. Then the interviews were read again, line by line, and memos about different emerging content areas were written down. Meaning units were then identified in the text, and after the meaning units had been read several times, they were condensed and subsequently openly coded while still preserv-

ing the core of content. The meaning units and codes were then read several times, interpreted, compared regarding differences and similarities, and abstracted and grouped into emerging categories. In the second step, the analysis continued with reading and further interpreting the text, looking for patterns and relationships. Within this step, comparisons were constantly made between the different interviews, between different categories and between meaning units back and forth, in order to find the most comprehensive interpretation of the text and be able to collapse categories into themes and sub-themes. During this procedure, all the authors were involved in different stages and met to discuss the data and the emerging themes and sub-themes.

Results

Time use and daily rhythm

An overview of the mean time spent (hours) in the different activity categories, and TTA is illustrated according to sex, occupational grouping and age grouping in Figure 3 (Studies I–II). Women spent more time in activities categorised as self-care/self-maintenance than men did, while the men spent more time in activities belonging to the category of play/leisure than women did. Individuals, who belonged to the group with few or no structured activities during the day (Group 3), spent a little more time in self-care/self-maintenance and play/leisure than the individuals in the other two groups. The individuals aged between 43–55 years, spent more time in self-care/self-maintenance activities and TTA, and less time in sleep, than the two younger age groups. Individuals belonging to the youngest age group (20–33 years) spent more time in play/leisure activities than the other two age groups.

In the results presented below concerning time use and daily rhythm in relation to health-related variables, sociodemographic and clinical variables, all findings presented have a *p*-value <.05. Concerning time use, only the 24-hour periods in the different activity categories are presented, since the findings that pertain to these variables, together

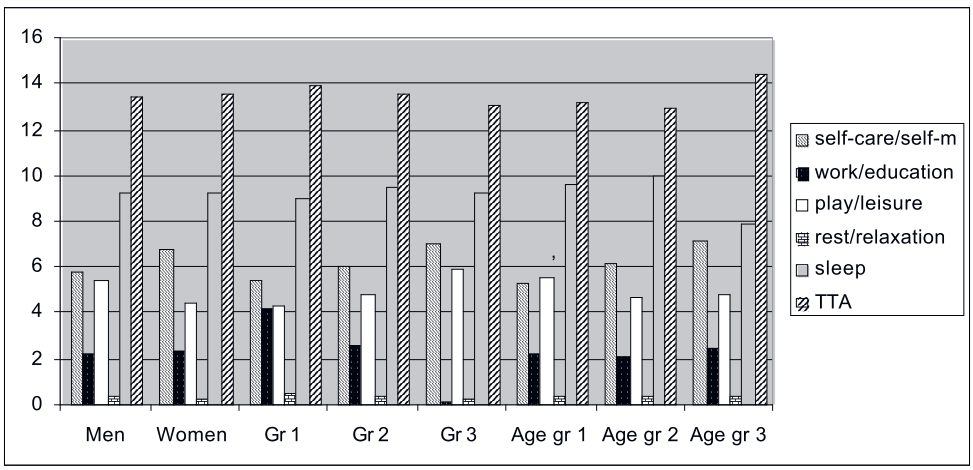

Figure 3. Mean time use (hours) in daily activities according to sex, occupational grouping and age grouping.

with those concerning daily rhythm, are considered to be the main results.

Time use and daily rhythm in relation to health-related factors

There were correlations found between time use in work/education and self-rated health (r_s = .233), mastery (r_s = .272), and quality of life (r_s = .231). Further, the total time in activity (TTA) during the 24-hour period was associated with self-rated health (r_s = .246), mastery (r_s = .364), and social interaction (r_s = .224), while more time sleeping was linked to lower social interaction (r_s = –. 203) and mastery (r_s = –.260) (Study I). When investigating differences between the four daily rhythm groups identified in Study I, differences were found between the daily rhythm groups concerning social interaction, showing that the Low-activity group and the Turned-around group had lower levels of social interaction than the other two groups. These two groups were also shown to perceive lower levels of mastery than the other two groups.

Time use and daily rhythm in relation to sociodemographic factors

There was a positive correlation between age and time spent on self-care/self-maintenance (r_s=.265), suggesting that time spent in this activity category increased with age. There was also a positive association between age and the total time devoted to activity (TTA) during the 24-hour period (r_s=.2), and a negative correlation between age and time spent sleeping (r_s = –.211), indicating that younger people spent more time asleep (Study II). Differences between the two groups of daily rhythm used in Study II were found concerning age, in that the group with a beneficial daily rhythm was older. Further, concerning sex the results showed that women spent more time than men on self-care/self-maintenance. The results also showed that the participants with children at home spent more time on self-care/self-maintenance, and also spent more total time in activity (TTA) during the day than those who had not.

Time use and daily rhythm in relation to clinical factors

The results in Study II showed that there were positive associations between psychosocial functioning and time spent in work/education (r_s=.380), and TTA (r_s=.229). Furthermore the results indicated that participants who had had a long contact with psychiatric services spent more time devoted to self-care/self-maintenance (r_s=.306). Concerning time use during the 24-hour period and symptom severity, the results showed that individuals with fewer negative symptoms spent more time during the 24-hour period in the activity category of work/education (r_s=–.325) and had more TTA (r_s=–.302). Furthermore, a correlation was found between more negative symptoms and more time spent asleep (r_s=.269). Concerning positive symptoms, the only association found was time spent in the activity category of work/education, where a negative association indicated more time in this category with less positive symptoms (r_s=.–.311). Negative correlations were found between general symptoms and time spent in work/education (r_s=–.449) and TTA (r_s=–.366), and it was also found that individuals with many general symptoms spent much time sleeping (r_s=.289). Moreover, a correlation was found between depressive symptoms and time spent in work/education, showing that those with fewer depressive symptoms spent more time in work/education (r_s=–.340).

When investigating differences between the two diagnostic groupings (Schizophrenia and other psychoses versus all other diagnoses) concerning time spent in the different activity categories, the results showed that there

was a statistically significant difference between the two groupings regarding time spent in work/education, indicating that individuals with schizophrenia and other psychoses spent less time in work/education than those with other conditions. Furthermore, individuals with schizophrenia and other psychoses spent more time asleep than the other grouping, and there was a difference between the two diagnostic groups regarding TTA, indicating that individuals with schizophrenia or other psychoses spent less total time engaged in activities than individuals with other diagnoses (Study II). When comparing the two daily rhythm groups concerning clinical variables (Study II), the results showed that the adverse group had more severe general symptoms than the beneficial group. The comparisons also indicated that the individuals with a beneficial daily rhythm had had more years of contact with psychiatric services.

Risk factors for imbalance in daily activities and daily rhythm

The sociodemographic and clinical variables were regressed on the 24-hour time-use variables and the two daily rhythm groups in Study II in order to investigate risk factors for imbalance in daily activities and daily rhythm. The analyses showed that having children living at home decreased the risk of spending abnormal periods asleep by about five times. Individuals with a diagnosis of schizophrenia or other psychosis had a roughly three times increased risk of belonging to the group with less total time spent on activities (TTA). Further, belonging to the group with high levels of general symptoms increased the risk of spending short periods engaged in the activity category of work/education by almost three times. Furthermore, individuals having more severe general symptoms showed an almost five times higher risk of belonging to the abnormal group concerning time spent asleep during the 24-hour period. The results also showed an almost four times increased risk of little TTA when belonging to the group with high levels of general symptoms. In addition, those with high levels of general symptoms showed an increased risk of having an adverse daily rhythm, while a longer period of contact with psychiatric services decreased the risk of having an adverse daily rhythm.

Perceived meaningfulness in daily occupations among people with PMI

Perceived meaningfulness in daily occupations was described within five main themes and adhering categories (Study III). The main themes are presented below and the number of statements within each theme is given within brackets. The first theme, *connection with others and the world around them* (151), was composed of descriptions about occupations that were meaningful since they led to contact with others. A change of environment and contact with the surrounding physical and social world were two examples. Talking with others and having contact with other people and pets were also perceived as meaningful. Being needed and helping others were also described as meaningful, since it resulted in appreciation from others and a satisfying feeling of having accomplished something for another person. The second theme found was *enjoyment and fun in life* (116). The participants perceived enjoyment and happiness when performing certain occupations and this feeling of enjoyment or happiness could be connected to any type of occupation, for instance, meeting and talking to other people, being engaged in a hobby or going shopping. Enjoyment of the good things in life, e.g. eating something tasty, smelling something nice, or seeing something beautiful were also occupational situations that belonged to this theme.

The third theme of meaningfulness was *being productive and having a sense of achievement* (86). The participants experienced meaningfulness when producing something with which they were satisfied. The source of this feeling of satisfaction could be either a product or some other kind of result, such as having cleaned the house. Some of the occupations were perceived as meaningful because they were necessary, but others because they encouraged and made the individual learn new things. Being engaged in occupations that were creative and stimulating was also part of this theme. The fourth theme, *being occupied and having routines and projects in the stream of time* (46) illuminated the fact that the participants experienced meaningfulness by simply being occupied with any occupation, i.e. "having something to do". They also described how some occupations gave them meaningful routines and structured their day, for example, getting up at a certain time, eating dinner or doing things according to a certain procedure. Having occupations that were linked with or led to future goals and occupations that could be viewed as life projects were also experienced as meaningful. *Taking care of oneself to maintain health* (107) was the fifth theme of meaningfulness in daily occupations. Occupations meeting the individuals' basic biological needs, such as eating, drinking and sleeping, were described. Occupations that gave a feeling of relaxation were other examples. Relaxation was often described as a type of active resting and tranquillity, i.e. not just lying on a bed to rest, but found in various kinds of occupations, like listening to music, taking a walk, or meditating. Another aspect of this theme was perceived meaningfulness when performing an occupation that led to better well-being. This type of meaningfulness shed light on a strategy used by these individuals in their daily life, which was that they performed certain "individually therapeutic" occupations in order to take care of themselves and cope with their mental illness.

Perceived meaningfulness in daily occupations when having different types of daily structure

All aspects of perceived meaningfulness found in Study III occurred in all three groups, representing different types of daily structure. *Having contact with others and the world around them* occurred quite evenly over the three occupational groups. Statements about *enjoyment and fun in life* occurred more frequently among participants who attended community based activity-centres, than in the other two groups. Concerning the theme, *being productive and having a sense of achievement*, a visual inspection revealed that statements within this theme occurred less frequently among the participants who had competitive work or studied, than in the other two groups and statements within a subtheme of this theme, namely learning something new and developing skills, occurred more frequently among the participants who attended community based activity-centres. The aspect of meaningfulness reflected in *being occupied and having routines and projects in the stream of time* occurred most frequently among the participants who attended community based activity-centres, and less frequently among those who had no or very little structured occupation during the week. Statements concerning *taking care of oneself to maintain health* occurred less often among the participants who had competitive work or studied, than in the other two groups.

Perceived meaningfulness in work

The findings in Study IV resulted in four main themes:

1) Work per se has certain characteristics.
2) Participation in different contexts gives a feeling of normality, acceptance, belonging and fulfilment of norms and values.

3) Work affords structure, energy and a balanced daily life and
4) Work increases well-being and strengthens one's identity.

The identified aspects of meaningfulness in work may be viewed as components of a dynamic system where themes 1–3 are linked to the fourth theme, increased well-being and strengthened identity. The pattern of the findings is illustrated in a tentative model (Figure 4).

The first theme of perceived meaningfulness in work was that *work per se has certain characteristics* that are meaningful, namely receiving a salary, having paid vacation, feeling useful, and having a certain function at work. This often led to increased self-esteem, self-confidence and independence and thereby a link to the fourth theme was obvious. Being part of a group of work mates and feeling like a link in a chain were also seen as meaningful, and sometimes also as necessary to be able to continue working. Having a salary was of importance for the participants' lifestyle and occupational balance, since it meant improved economy, which in turn often led to the participants being able to afford to perform other or more occupations in their daily life such as, leisure activities, going on vacation or improving their living standard in other ways. The second theme was termed *participation in different contexts gives a feeling of normality, acceptance, belonging and fulfilment of norms and values*. The informants perceived meaningfulness in terms of normality, exemplified as getting on with a normal life and a feeling of fulfilling norms and values in society that they experienced existed. Contributing to society and playing one's part were con-

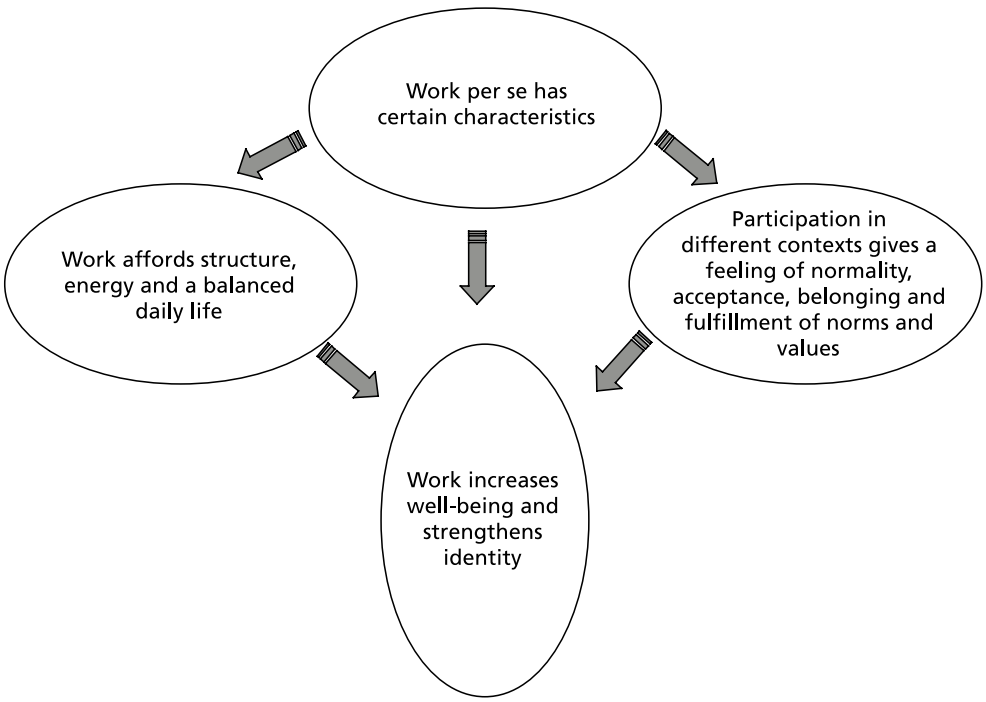

Figure 4. Tentative model of percieved meaningfulness of work.

sidered meaningful and made the individuals with PMI in this study proud of themselves. Belonging to a group of workmates, having fun together and experiencing social bonds were very important too. The workplace also seemed to be an important arena for establishing new social connections and friends and expanding one's social network. This aspect of meaningfulness was also linked to the meaning aspect of increased well-being and strengthened identity. The third theme that emerged was that *work affords structure, energy and a balanced life*, and this aspect was also clearly linked to the meaning aspect of increased well-being and strengthened identity expressed in the fourth theme. Work was described as leading to certain time schedules that were valued and helped the individual maintain his or her daily rhythm in synchrony with the light-dark cycle. Work was also perceived as meaningful since it gave a feeling of balance between work and leisure, such as feeling a difference between work and leisure and their attributes in every day life, which seemed to promote well-being. Furthermore, work energised the individual to become more occupied in other contexts after work, as a type of spin-off effect. This spin-off effect was perceived as very positive in everyday life by the participants, and some of them had experienced that being passive for long periods of time seemed to lead to even more passivity. Another aspect of this theme concerned experiencing the just right challenge, i.e. where different work tasks and environmental demands were in perfect balance with the skills of the individual, which made the participants feel competent. The participants stated that they needed challenges at work that were perceived as stimulating, developing and creative. These first three themes were found to be linked to the fourth meaning aspect, which concerned perceiving *increased well-being and strengthened identity*. This aspect of perceived meaningfulness illuminated that the participants experienced less symptoms and were less depressed when working, and they also felt that work increased their self-esteem and strengthened their identity because they felt they were contributing to society, had a professional pride and a feeling of living a normal life.

Discussion

This thesis' overarching aim was to explore and investigate occupation and wellbeing among people with PMI, from the perspectives of the time they spent in daily activities, their daily rhythm and their perceived meaningfulness within these occupations. A certain focus on perceived meaningfulness in work, in terms of having an employment, was made in the last study, since the results in Studies I–II, as well as previous research, had indicated that work seemed to have a special meaning and be related to perceived well-being.

Occupation and well-being

Being engaged in daily activities – a source of well-being and meaningfulness

The results of the present thesis indicated some weak but statistically significant relationships between occupation and well-being in Study I, in that a high level of total time spent in activity during the 24-hour day (TTA) was associated with better ratings of health, mastery, and social interaction. Previous research, showing that people with PMI spend a great amount of time asleep during the 24-hr day, was confirmed, and the results indicated that spending a large amount of time sleeping was associated with worse self-rated health, worse mastery, and quality of life, and lower ratings of social interaction. Although the correlations were fairly low and have to be interpreted with caution, it seems important that in future research, to focus on

time that is used sleeping by people with PMI, since different kinds of sleep disturbances are one of the most common symptoms among people with PMI (Sadock & Sadock, 2003). A study investigating the quality of nocturnal sleep quality among persons with schizophrenia revealed that poor sleep quality, especially in terms of low rates of subjective sleep quality and daytime dysfunction, was substantially associated with quality of life (Ritsner, Kurs, Ponizovsky & Hadjez, 2004).

No associations were found between TTA and quality of life. A probable explanation to this result could be that satisfaction with the activities performed was not apparent in Studies I–II, and subjective experiences, such as satisfaction and perceived meaningfulness or value, have been shown to be a more important factor than actual time use in relation to quality of life (Eklund *et al*., 2001, 2004; Eklund & Leufstadius, 2007). Similarly, no associations were found between time spent in leisure activities and to well-being. This might be a consequence of the fact that most of the leisure activities were a type of passive leisure, such as watching TV and listening to the radio. Although the findings in Study I could not give any strong general support to the assumption of a relationship between occupation and well-being, the results showed a consistent pattern concerning TTA, time spent in work/education and sleep. They all showed relations to different well-being factors. Further, the results in Study III indicated that being occupied per se, as well as having routines and projects in the stream of time, was considered to elicit meaning. This is in agreement with previous research, showing that being engaged in occupations and having projects to do play an important role for people with PMI in the development of their identity (Mee *et al*., 2004).

Taking care of oneself to maintain health by doing certain daily activities was highlighted as an aspect of meaningfulness in Study III. The participants perceived occupations such as eating, drinking, and sleeping as meaningful as they met their basic needs. These occupations correspond the basic biological needs that must be met in order to survive and restore oneself (Maslow, 1999; Wilcock, 1993). Furthermore, the participants perceived meaningfulness in certain occupations that they performed in order to maintain health and well-being, such as relaxing, meditating, being creative, and being physically active. This strategy, to derive meaningfulness from some kind of self-therapy, has also been described in previous research (Hvalsøe & Josephsson, 2003; Ikiugu, 2005; Mee *et al*., 2004). Relaxing occupations have been shown to distract attention from symptoms and give the person time to self-regulate and regain energy (Bejerholm & Eklund, 2006; Hvalsøe & Josephsson, 2003; Nurit & Michal, 2003; Minato & Zemke, 2004a). Using occupation as means for maintaining well-being occurred more frequently among individuals attending community-based activity centres and those having no or few structured occupations during the day. This is in line with another study that has shown a similar aspect of perceived meaningfulness that of taking care of oneself to maintain health, among individuals with PMI who were not employed (Strömberg, Håkansson & Eklund, 2008). These occupations, their content, and the individual strategies to remain healthy and facilitate recovery, need to be further investigated in future research. All of these findings indicate that individually adjusted engagement in daily occupations and having something to be occupied with, including relaxing occupations, could probably reduce stress factors, such as feelings of anxiety, boredom, not being needed, and social isolation, which are quite common among persons with PMI.

Social interaction and belonging

The social and environmental aspects that influence human occupation and daily time use

deserve to be especially highlighted. Associations were found between total time spent in daily activities and social interaction in Study I. Time use in daily activities and the daily patterns they form are largely a socio-cultural construct, i.e. the social environment strongly influences a person's daily time use (Christiansen, 2005b; Epstein & Kalleberg, 2001; Singleton & Harvey, 1995). The importance of social networks for maintaining well-being and enhancing recovery among persons with PMI has been highlighted in previous research (Eklund & Hansson, 2007; Evert, *et al.*, 2003; Forsell *et al.*, 2004; Topor *et al.*, 2006). Social life, connection with others and the world around, and being needed by others, such as family or friends, was the aspect of perceived meaningfulness most frequently reported by the participants in Study III. Sitting in a café and watching other people could be perceived as meaningful, since it meant getting out of the home environment and breaking the feeling of isolation. Sometimes these indirect forms of social connection were chosen because of the persons' lack of a social network, and sometimes as a temporary alternative when the participants occasionally felt that they were not able to cope and interact with others due to illness. The feeling of being needed and the experience that one's life has a value for others, as well as for oneself, constitutes an important dimension of meaningfulness, framed as a sense of belonging (do Rozario, 1994; Gahnström-Strandqvist *et al.*, 2003; Hammell, 2004; Ikiugu, 2005; Piskur, Kinebanian, & Josephsson, 2002). In Study IV, the results showed that work was perceived as meaningful since it gave a sense of normality, acceptance and belonging. The participants described feelings of belonging by their being part of society, but also as generated at a personal level, by having work-mates. Thus, research so far, including the results in the present thesis, shows that daily occupations that promote social relationships and are characterised by them seem to be an important aspect of meaningfulness among people with PMI, although social relations may also lead to occupational problems caused by social dysfunctions.

Work and its importance to well-being

Work and other productive activities were shown in the present thesis, to be important occupations among people with PMI both concerning perceived meaningfulness and perceived well-being. A large amount of time spent in work, in terms of productive activities such as work/education, voluntary work and activities at a daily activity centre, was related to better well-being in several respects in Studies I–II. Productive activities seem to bring structure, satisfaction and meaning to the day, and are considered to be highly valued by society (Arns & Linney, 1993; Bell & Lysaker, 1997; Crist *et al.*, 2000; Eklund *et al.*, 2001, 2004; Fidler, 1981; Hvalsöe & Josephsson, 2003). Surprisingly, the findings in Study I could not demonstrate any significant relationship between time spent in the category of work/education and social interaction, which was demonstrated in previous research to be otherwise (Evans & Repper, 2000). However, the findings in Study I could have to do with a mis-match between the job demands and the individuals' interests, needs and skills, and that some participants may have experienced distressing social interactions, and perhaps even social rejection and discrimination at their workplaces. In previous research, this has been found to be quite common and very distressing for people with PMI (Honey, 2004; Kirsh, 2000). However, Study I indicated an association between work and other aspects of well-being, and according to the findings in Study IV work was a meaningful occupation that could bring feelings of health and well-being. The different themes of meaningfulness found in work seemed to act together as a system, and the themes were

all linked to the aspect of meaningfulness that concerned increased well-being and strengthening of identity through work. This latter theme could be interpreted as a possible core theme (Study IV). These findings, that work enhances well-being, have good support in earlier research (Eklund *et al*., 2001; Ianelli & Wilding, 2007; Kirsh, 2000; Provencher *et al*., 2002; Strong, 1998), and especially the qualitative studies indicate a causal relationship (Kirsh, 2000; Strong, 1998).

The spin-off effect of occupation

An interesting phenomenon, the spin-off effect of performed occupations, was found in Study IV. It seemed that work energised and motivated the individuals to become more occupied at other times and in other contexts than work. A recent study among people with PMI (Iannelli & Wilding, 2007) presented findings in line with this. That study described that the participants experienced that a sense of obligation, as reflected in 'showing up' at work, sustained engagement in work more regularly. The spin-off effect found in the present thesis seemed also to be able to work the other way around, and in this case create a corresponding hampering effect. The participants described that long periods of passivity seemed to have the effect that they became even more passive during the day. Work seemed to be the key to start the positive spin-off effect, possibly since work is often accompanied with commitment and with schedules to follow. Still, too much obligation to attend to work can give negative effects and experiences of stress. Thus, the individual's capacity and the occupational and environmental demands have to be in balance and be well matched in order to maintain well-being. If the spin-off effect gets exaggerated and rolls on uncontrolled, and the person is active most of the day and engaged in more occupations than he or she can handle, the effect could probably be the same as that has been observed among persons with burnout and other similar diagnoses, often caused by long-term stress in everyday life. This is only speculation, but it would be interesting to investigate if this spin-off effect exists in other populations as well, and thereby it show itself to be quite a universal phenomenon, and if these proposed positive and negative consequences can be traced there too.

Occupational balance

A satisfactorily organised pattern of daily activities generates balance and meaningfulness

Studies I–II showed that occupational balance, as reflected in that time use was positively related to well-being, seemed to occur among those who spent much time in work/education and had not more than about 10 hours of sleep. Time spent in the other activity categories did not show such a clear pattern of association to well-being. In Study IV, the participants described that work was meaningful since it afforded structure, energy, and a balanced life, giving them a feeling of balance between being passive and active, and between work and leisure, which also made the leisure time more visible and valuable. Routines are part of, and also form, the patterns of time use in daily activities. Daily routines specify what a person shall do, and in what order, and therefore provide a structure in people's lives that in a way protect them from chaos, and offers stability and ways to ensure the presence of the familiar in their daily life. Routines also enable people to identify and recognise themselves and to place themselves within their culture (Hasselkus, 2002; Kielhofner, 2008). The importance of engaging in daily occupations that bring structure and routines during the day was also illuminated by the results in Study III, which showed that one aspect of perceived meaningfulness was being occupied and having routines and projects. The participants found it

very important to make plans and set up goals for the future, and to have occupations that lasted over time, which is in line with previous research (Gahnström-Strandqvist *et al*., 2003; Mee, *et al*., 2004; Minato & Zemke, 2004a; Nagle *et al*., 2002). People with PMI sometimes perceive difficulties and have problems in fulfilling their needs for routines, especially when not working or attending any rehabilitation programme, and some of them seek external support to schedule their daily time use (Hvalsøe & Josephsson, 2003). Further, the tentative model of perceived meaningfulness (Study IV) suggested that this aspect of meaningfulness, having structure and routines, was closely linked to perceptions of increased well-being and strengthened identity. Thus, work and other productive activities could work as time setters and function as incentives in building patterns of time use in daily activities that are perceived as balanced and increase well-being among people with PMI. Still, other daily activities, such as self-care/self-maintenance, play/leisure and sleep, can also serve as time setters, depending on how they are organised and perceived individually. For example, Craik and Pieris (2006) illuminated the value of scheduled leisure activities, which gave a sense of keeping busy in the absence of other structured activities and was highly valued among people with PMI.

A certain daily structure per se does not automatically lead to perceived meaningfulness, since this is always an individual perception. In the present thesis, perceived meaningfulness among people with different types of daily structure (the three occupational groups) was investigated in Study III. All aspects of meaningfulness found were represented in all three occupational groups, which indicate that the same experiences of meaningfulness can occur in different occupations and types of daily structure. The participants who worked or studied reported meaningfulness less frequently than the other two groups (attending community-based activity centres, without or having few regular structured occupations), within the theme termed "Being productive and having a sense of achievement". Although this result was based only on visual inspection, it was quite surprising, since the opposite could have been expected. The aspect of meaningfulness that concerned enjoyment and fun in life was reported more often among persons attending a community based activity-centre than in the other two groups. This might suggest that community-based activity centres are successful in supporting people with PMI to engage in daily occupations that they find interesting and enjoyable, which was also found in a recent study (Strömberg *et al*., 2008).

Daily rhythm

Individuals often arrange their activities and daily rhythms according to the mechanical clock and in such a way that a balance between the light-darkness cycle and the rest-activity cycle is maintained during the 24-hr day (Larson & Zemke, 2003; Moore-Ede *et al*., 1982). These rhythms also function as a type of social coordination of activities in society (Epstein & Kalleberg, 2001; Larson & Zemke, 2003). If the daily rhythm appears to be a type of desynchronisation, causing occupational problems and decreased well-being, it becomes an issue for intervention. The findings in Study I showed that the four groups of daily rhythms differed concerning perceived social interaction and mastery, indicating that performing occupations in synchrony with the light-darkness cycle inferred an advantageous situation, as suggested by time-use researchers (Minato & Zemke, 2004a; Larson & Zemke, 2003). People who sleep when others are awake probably have difficulties in maintaining their social network and performing certain daily occupations. These findings were in accordance with previous research, showing that people with PMI have problems in maintaining their dai-

ly rhythm, especially when not working or attending a structured programme and that they constantly have to struggle to maintain a normal circadian rhythm (Hvalsøe & Josephsson, 2003; Nagle *et al*., 2002).

The importance of a beneficial daily rhythm was also highlighted in Study IV, confirming that work gave structure to the day and a balanced daily rhythm, synchronised with the light and darkness cycle. The findings are in line with Christiansen (1996), who stated that occupational balance is the way in which people satisfactorily organise their days so that their days are perceived as harmonious, cohesive and under control. Some of the participants described that they even made certain plans at the weekends, such as inviting friends for dinner and cleaning their apartment, in order to maintain their daily rhythm when not working, since they knew that otherwise they would be sleeping away the whole weekend.

The just right challenge

Study IV showed that meeting the just-right challenge was experienced as meaningful. If the tasks were too difficult or too easy, work became less meaningful. The participants stated that they needed a challenge that made them feel stimulated and creative, and that they learnt new things, in order to perceive meaning. This is in accordance with previous findings among people with PMI. Nagle *et al*. (2002) found that the participants valued work that was not simple, repetitive or boring, because they wanted to develop their skills and make use of their previous experiences. The just-right challenge constitutes a kind of occupational balance, which occurs when the challenges at work, i.e. the occupations that are to be performed and the environmental conditions, match the individual's capacities and interests. Such a match could also result in a flow experience, i.e. feelings of enjoyment and forgetting oneself and time (Csikzentmihalyi, 1993; Jonsson & Persson, 2006; Persson *et al*., 2001). Different work tasks and environmental demands that were found to be sufficiently stimulating, developing and creative gave the participants in Study IV a feeling that they had the resources and skills necessary to cope with their tasks which made them feel competent. If the balance between work and worker was instead negative, work could easily become the source of stress, however, which could result in distressing social interactions and social rejection, leading to decreased well-being and self-esteem, as has been shown in other studies (Honey, 2004; Kirsh, 2000; Strong, 1998; Woodside *et al*., 2006). As stated by Bejerholm and Eklund (2007), the rehabilitation of individuals with schizophrenia and the striving for occupational balance, constantly involves walking the line between over-occupation and under-occupation. The finding in Study IV, that an appropriate challenge per se was perceived as meaningful, as well as its linkage to increased well-being and strengthened identity, is thus very important to bear in mind when planning and developing vocational rehabilitation, supported employment or other meaningful occupational opportunities for individuals with PMI.

Sociodemographic and clinical factors as risk factors for imbalance in time use

The main findings in Study II, that younger individuals spent less time in daily activities, slept more and more often than the older participants had an adverse daily rhythm, were signs of imbalance in the younger group, and they appeared under-occupied, according to the reasoning of Christansen and Townsend (2004). This finding is in line with previous research among people diagnosed with schizophrenia (Bejerholm & Eklund, 2007). Much time devoted to sleep, especially during daytime could be interpreted as either a sign

of boredom or as fatigue due to illness (Farnworth, 2003; Jonsson & Persson, 2006; Wilcock 1998a). A more beneficial use of time by the older group could also be interpreted as reflecting a coping strategy developed with age, making it easier to handle everyday life and engage in occupations (Eriksson, 1959), or as a sign of recovery. There were no differences in time spent in daily activities between individuals cohabiting or living alone, which was a quite unexpected result since such differences have previously been shown in time-use studies among people without PMI (SCB, 2003; Singleton & Harvey, 1995). In this thesis, it was found that women spent somewhat more time in activity during the day than men did, especially in self-care/self-maintenance activities. Moreover, having children at home was also related to more time in self-care/self maintenance. However, most of the participants having children living at home were women. Thus, not only female gender, but also a family situation with children living at home, was linked to more time spent in this category. This is in agreement with general population studies (Singleton & Harvey, 1995; SCB, 2003), showing that time use in daily activities may be related to the presence or absence of children and varying family constellations. Furthermore, time use in daily activities needs to be further and systematically investigated in relation to life-cycle variations and combinations of important factors, such as age, marital status, presence of children, and employment status, since combinations of factors have been suggested to explain a greater amount of variance in time use than factors taken one by one (Zuzanek & Smale, 1992).

The findings of this thesis also showed that individuals diagnosed as having schizophrenia or another psychoses spent less time in TTA and work/education than individuals with other diagnoses. Having a diagnosis of schizophrenia or other psychosis meant roughly a three times increased risk of having little TTA. General symptoms explained most of the risk of spending short periods in work/education, as well as the risk of an abnormal time asleep and an adverse daily rhythm. Thus, diagnosis and symptoms have to be taken into account when supporting the target group to achieve a daily life with occupational balance. However, the findings from the present thesis, that of general symptoms as explaining most of the risk of imbalance, can not be compared to those of the only previous study found of predictors of time spent in daily activities, performed by Harvey *et al.* (2006), since general symptoms were not investigated in that study. Furthermore, the participants in Study II consisted of individuals with several types of diagnosis, while the study by Harvey *et al.* included only people with schizophrenia.

Perceived meaningfulness in daily occupations

Experiences of meaningfulness are linked with time and the individual life-story, as proposed by Persson *et al.* (2001) and Ikiugu (2005). When asking the participants included in Study III about how they perceived the occupations performed the previous day concerning meaning, a quite narrow picture of perceived meaningfulness was revealed. However, had they been asked about meaningfulness in daily occupations in relation to their whole life, both past and present, and perhaps also in the future, visions of meaningful occupations in everyday life might have emerged. Thus, investigating perceived meaningfulness is a matter of both the time perspective chosen and the methodological approach.

In the present thesis, different daily occupations seemed to contribute to a balanced life. Study III revealed a type of weave of meaningfulness in everyday life among the participants. The different aspects of occupational meaningfulness found, that is to say connection with others and the world around,

enjoyment and fun in life, being productive and having a sense of achievement, being occupied and having routines and projects in the stream of time, and taking care of oneself to maintain health – could be viewed as balancing each other. Thus, different combinations of perceived occupational meaningfulness could constitute different examples of balance. For example, there could be a striving to achieve balance between being engaged in social relationships on the one hand and taking care of oneself, resting and carrying out occupations on one's own to maintain health and well-being on the other. This type of balance seems to be in line with findings related to balance in every day life among women with stress-related disorders (Håkansson *et al*., 2006). Further, having fun and enjoyment in life versus being productive and seeking a sense of achievement could be another aspect of balance, also clearly expressed in the findings in Study IV. Another type of balance based on meaningfulness appeared to be between being occupied and being passive or sleeping. Finally, yet another aspect of balance seemed to be shaped by the organisation of daily occupations into a certain structure, with routines and projects, as opposed to having little structure, few routines and future projects in everyday life. The optimal balance between the opposing poles in these examples is of course an individual matter. For example, some people with PMI want few structured occupations in their life, while others need more structure in order to maintain their wellbeing.

However, Study III also revealed that the participants performed several occupations that were not commented upon concerning perceived meaningfulness and these occupations could be interpreted as being quite neutral to them. Another explanation could be difficulties for some of the individuals in describing the perceived meaningfulness at that point of time, for example due to illness. Previous research has shown that most of the daily occupations performed by those with PMI are perceived as quite neutral (Bejerholm & Eklund, 2006). The findings from Studies III–IV somewhat resemble previous researchers' statements about the importance of balancing work, rest and play (Backman, 2004; Christiansen, 1996, 2007). However, the results from this thesis indicate that the balance should not primarily be between strictly defined activity categories, in order to maintain health and well-being, but rather between the different facets of meaningfulness derived from performing different types of occupations. Hopefully, framing occupational balance this way will serve as an inspiration for future research.

Perceived meaningfulness in work as compared to other daily occupations

When reflecting upon the results from Studies III–IV, three aspects of perceived meaningfulness can be discerned that seem more clearly attached to work, in terms of employment as investigated in Study IV, than to the daily occupations investigated in Study III, although work in terms of employment was represented in that study as well. The finding in Study IV about work having certain characteristics, such as the possibility to perform real work tasks, having a salary and vacation, and participating in a work process, was an aspect of meaningfulness that did not emerge in Study III. This could be due to the time perspective, though, since the participants in Study III were only asked about perceived meaningfulness during the previous day. A related study revealed that work status showed to be important for a subjective satisfaction with the economic situation (Eklund, 2008). That performing real work, feeling useful and participating in a work process were meaningful aspects, as found in Study IV, is in accordance with findings in previous research (Honey, 2004; Kirsh, 2000; Nagle

et al., 2002; Strong, 1998). It has also been demonstrated that the improved financial situation work may bring is perceived as beneficial and gives work a special meaning (Honey, 2004; Kirsh, 2000). The second specific aspect of meaningfulness regarding work, namely that participation in different contexts gave a feeling of normality, acceptance, belonging and fulfilment of norms and values, was partly seen in Study III, in terms of a type of belonging or connection with others and the world around. However, the feeling of being more accepted and given more value by others, of living a normal life and of fulfilling existing norms and values in society emerged only in Study IV. Feelings of normality have been highlighted in previous research as one of the dimensions of meaningfulness in work or other work-related occupations, and have also shown to counteract stigma (Gahnström-Strandqvist *et al*., 2003; Kennedy-Jones *et al*., 2005; Strong, 1998; Strömberg *et al*., 2008). Perceived meaningfulness in terms of fulfilling existing norms and values related to work has not been highlighted so often in previous research, but agrees with some theoretical reasoning around meaning. Persson *et al*. (2001), when describing a model of the values perceived when performing daily occupations , mentioned the symbolic value as arising when the individual is doing something that is influenced by society and culture and their norms and ideologies. According to that model, the value perceived is also linked with a sense of meaning. Moreover, that meaningfulness is something people develop during life when interacting with their socio-cultural environment and fulfilling its norms has been described by Bruner (1990). He emphasised the socio-cultural environment people grow up and live in as the fundamental structure behind meaningful occupations, as expressed in his statement "Others on stage already have a sense of what the play is about, enough of a sense to make negotiation with a newcomer possible" (p. 34).

The third aspect found in Study IV that differed from those found in Study III was that work was meaningful since it increased well-being and strengthened the individual's identity. This aspect of meaningfulness could also be interpreted as the core aspect, since all other aspects of meaningfulness found were linked to it. In Study III, one aspect of meaningfulness concerning the individuals' health emerged. However, that aspect was about taking care of oneself, meeting basic needs, relaxing and performing certain other daily occupations to stay healthy and was not related to work. Furthermore, that aspect of meaningfulness occurred less frequently among the participants who belonged to the group that had work/education during the week. These findings of differences in meaningfulness related to work could of course be the result of using different methodological approaches and different samples in Study III and Study IV. Thus, more research is needed within this area in order to gain more knowledge about whether, especially work is attached with these special aspects of meaningfulness among people with PMI, and if work has a greater potential for increasing the individuals' perceptions of well-being and strengthened identity.

Methodological considerations

Studies I–III

Design and selection of participants

Studies I–III, had a cross-sectional design and was based on a one-time measure. Although most time-use studies apply this approach (Pentland & Mc Coll, 1999) it infers an important limitation concerning the possibilities to reveal causal relationships. The sample used in Studies I–III, was selected from patients attending a psychiatric outpatient unit, grouped into three strata from which the sample was randomly chosen. The non-

participants were about 40%, which is comparable to that in other studies performed in similar samples (Eklund *et al*., 2001). This limits the possibility to generalise the findings, although the dropout analysis showed that there were no substantial differences between participants and non-participants. Moreover, the geographic area from which the sample was drawn was a city with a highly educated population and all of the participants attended the same psychiatric unit. This circumstance also limits the possibility of generalising the findings. Moreover, most of the persons with PMI were living alone, and even if this is representative for the group it is important to consider when generalizing the results.

Instruments

The yesterday's activity diary is considered to be a useful and reliable method (Bejerholm & Eklund, 2004; Erlandsson & Eklund, 2001; Erlandsson *et al*., 2004; Lawton, 1999; Robinson, 1999) and captures the daily occupations in their natural temporal context. However, people engage in daily activities and perceive their health and wellbeing in many different ways during different seasons and over their lifetime. The data collections for these studies were performed during the first six months of the year. More measurements during different seasons and weekdays would have given a more complete picture of the participants' time use in daily activities, but was not feasible for this project. Moreover, the yesterday's activity diary used did not specifically capture the physical and social environmental factors, which is otherwise the case in time-use studies (Harvey, 1999). Still, when analysing the data from the diaries, information about the geographical and social environment in which the occupation was performed was often found in the descriptions of the activities the participants were doing. Furthermore, the activity diary captured perceived meaning, not just the time spent in daily activities. Thus, a strength of this thesis is that two important perspectives were captured in Studies I–III, time use patterns and perceived meaning of daily activities, in line with suggestion by Michelson (1999). Using the yesterday activity diary for one weekday by recall might have influenced the internal validity, and thereby the external validity, in some respects. The data collected reflected subjective recollections of the activities performed during the previous 24 hours and the participants' recollections may have been selective. Difficulties in recalling all events during the interview when using the yesterday diary have been highlighted by Pentland and McColl (1999). Moreover, the responses could have been affected by a wish for integrity and social acceptability, which could influence the participants' willingness to report activities such as sexual activities, alcohol abuse or other intimate activities (Lawton, 1999; Pentland & McColl, 1999). However, the validity of the data captured in Studies I–III seemed to be good, as reflected in how representative the reported day was for the participants. Ninety percent of the participants rated the day as representing a normal day from three to five, on a five-point scale. One limitation might be that the categorisation of the reported activities used for analysis in Studies I–II implies a subjective interpretation, made by the first author. However, the inter-rater agreement was good (91%), rendering some reliability to the method of categorisation. Still, in future research it would be recommended to ask the participants to categories the daily activities themselves, since the subjective and personal experience of the performed occupations then would be captured. This seems to be the most important perspective when studying daily activities in relation to well-being, as shown in previous studies (Eklund *et al*., 2003; Eklund & Leufstadius, 2007). The daily rhythm among people with PMI in the present thesis was framed by a new method for analysing the time-use variables.

This method seems promising for the purpose of investigating daily rhythm in relation to health and well-being and could be applied in future studies.

The instruments used in Studies I–II for assessing well-being and clinical factors had been previously tested for reliability and validity. However, concerning BPRS, used in Study II, two of the four subscales used consist of very few items, perhaps affecting the internal validity of that study. The BPRS has been recommended for use with persons with schizophrenia and other psychoses (Sadock & Sadock, 2003), and therefore seemed appropriate for that study. However, many individuals with schizophrenia and psychosis also have shown to be depressed (Forsell *et al*., 2004) and, besides, people with affective disorders were included in the sample of this thesis. One of the BPRS subscales used concerned depression, and the fact that symptoms of depression were associated with only one of the time-use variables in Study II might be due to too blunt measurement of depression. A specific instrument assessing depression is therefore recommended for future research. A strength concerning the instruments assessing well-being within this thesis was that the combination well covered well-being as defined by Ryff (1989). However, one limitation concerning the analysis could be that the self-rated financial situation, captured in MANSA, was not analysed separately in relation to time spent in daily activities. The individual's satisfaction with his or her financial situation has previously been shown to be an important factor in relation to perceived well-being in different populations (Goldberg *et al*., 2002; Ryff, 1989). Thus, in future research this factor ought to be included, especially since the result in Study IV indicated that persons with PMI who had employment and a regular salary perceived that this safer financial situation affected their occupational balance positively, as well as their well-being.

Statistical procedures

Power calculations were performed in order to increase the likelihood of detecting a true difference and avoiding type II errors. A power of .80 when alpha = .05 has been proposed by Cohen (1992) and is generally accepted. The statistics used in Studies I–II were non-parametric methods, since all data except the time-use variables were ordinal data. No Bonferroni corrections were made, because this would have increased the risk of type-II errors, and some of the statistically significant findings would have disappeared if such corrections for mass significance had been used (Kazdin, 2003). The correlations were low to moderate and therefore the results have to be interpreted with caution. However, low correlations are in line with previous research concerning time spent in daily activities in relation to well-being (Lawton, 1999) and could for example be due to that the categories are too broad, or that the relationship between time use and measures of well-being may be "radically non-linear" (p.119), and therefore difficult to capture. A huge dose of positively valued activity may be required to raise an individual's level of well-being since well-being is relatively stable over time (Lawton, 1999). The concept of risk factors was used in Study II, but the design of the study does not allow prediction in a true sense, since no time sequence was established. The concept rather reflects a logical thinking, that gender, age, and having children are circumstances that can not be influenced by external factors, but possible may influence time use. The risk factors mentioned concerning imbalance in daily occupation should be viewed as the relative risk of a negative outcome (Sadock & Sadock, 2003). Furthermore, in Study II, several of the variables were dichotomised at the median cut point, in order to analyse data with the logistic regression method, which means that much of the variation within these variables was lost. However, the logistic regression analysis was considered the most appropriate

method since most of the variables were on ordinal scales and did not have a normal distribution (Altman, 1991).

Content analysis

In Study III, a content analysis, moving from a manifest to a latent level, was used for analysing the data, with inspiration from Berg (2004) and Sommer and Sommer (1991). Since the data consisted of short statements about perceived meaningfulness in daily occupations, captured during the interview with the yesterday activity diary, the manifest analysis was predominant. Collecting data at one point in time made it possible to record the experiences of meaningfulness in daily occupations of 102 participants during one weekday, and generated a fairly large amount of material consisting of 506 statements. The results in Study III must, however, be interpreted against the fact that the interviews reflected only one day of the participants' occupational life and the statements about meaningfulness represented only a part of the daily occupations performed during a whole day. However, the days that the participants described were considered by themselves to represent a normal day, which strengthens the credibility of the study. The entire analysis was checked and discussed among all four authors, and using different researchers during different steps of the analysis improves the trustworthiness and dependability of the present study (Berg, 2004; Creswell, 1998; Lincoln & Guba, 1985).

Study IV

A qualitative approach was chosen in Study IV, since it is well suited for investigating people's experiences of their own life-world and their personal perspective (Kvale, 1996; Taylor & Bogdan, 1998). The informants were purposefully selected in order to include employed individuals who varied concerning age, sex, type of work, employment conditions and duration of employment. That variety of individuals was seen as important in order to explore perceived meaningfulness in work in the target group. Even though it was a quite small sample of participants, the heterogeneity of the group ought to strengthen the credibility of Study IV. The use of probing during the interview, and putting further questions to validate topics that the informants described, should have improved the trustworthiness of the study.

The researcher's pre-understanding may influence the analysis and interpretation of the text, since a very intense interaction between the researcher and the text takes place (Burnard, 1995; Graneheim & Lundman, 2004). However, in an attempt to increase the credibility of the study, all three researchers were involved during the analysis process, in an effort to gain a deeper understanding, discover patterns in the data and to make propositions. A research approach to consider in future research of perceived meaningfulness in daily occupation is the ethnographic approach, which often combines interviews, observations and other fieldwork, and statistical analysis as a type of natural triangulation (Kiefer, 2007; Roper & Shapira, 2000). This could contribute to valuable knowledge and understanding about perceived meaningfulness in daily occupations and possible relationships to well-being among people with PMI.

Conclusions and clinical implications

The major results of the present thesis were that spending much time in daily activities, and especially in the activity category of work/education, seemed to increase well-being among people with PMI, in terms of better self-rated health, social interaction and higher levels of mastery. Spending much time asleep seemed to decrease well-being in this group. These findings concerning time use in work/education and sleep showed a con-

sistent pattern of relations to different factors of well-being. Concerning the daily rhythm and relationships to well-being, individuals who had a beneficial daily rhythm showed higher levels of mastery and social interaction than those who had an adverse daily rhythm. The rest-activity cycles that form the daily rhythm could therefore be an important focus for occupational therapists when working with people with PMI. Furthermore, the results showed that the new method of analysing the time-use diaries into variables of daily rhythm seems adequate. Therefore, this methodology could preferably be incorporated into the assessment battery of occupational therapists working in mental health care, and also be used in future research.

Time use in relation to sociodemographic factors revealed that time spent in daily activities increased with age and that older individuals more often had a beneficial daily rhythm. Women and those living with children spent more time engaged in self-care/self-maintenance than men. Thus, one could assume that young people, perhaps particularly young men, are at special risk of having an occupational imbalance in everyday life and need support by occupational therapists in structuring their day in such a way that they are engaged in activities that they find meaningful and build routines and a beneficial daily rhythm. Furthermore, individuals diagnosed with schizophrenia and other psychoses spent less total time in daily activities than individuals with other diagnoses. General symptoms explained most of the risk of spending short periods in work/education and having an adverse daily rhythm, as well as the risk of an abnormal time asleep. These symptoms therefore have to be taken into account when supporting these individuals in their daily life. Engagement in therapeutic and meaningful occupations has been suggested to counteract these general symptoms and motivate these individuals to further engagement in activities, leading to perceptions of better health and wellbeing (Cowls & Hale, 2005; Mee *et al*., 2004; Yakobina, Yakobina & Tallant, 1997). Further, Study III revealed important aspects of meaningfulness in daily occupations among persons with PMI. Thus, this thesis has provided knowledge about important aspects of meaningfulness, as perceived in different kinds of occupations, which could be used by occupational therapists and other professionals. The results from Studies I–III suggest that the following is important in clinical work among people with PMI:

- Interviewing and assessing each individual concerning his or her time use in daily activities and the perceived meaningfulness, occupational wishes and goals, and paying special attention to how general and negative symptoms may influence the time use in daily activities.
- Identifying the structure of the days and routines during a common day or week, and discussing possible changes, if necessary, in the individual's daily life.
- Supporting the individual to structure his or her daily occupations into a daily rhythm in synchrony with the light-darkness cycle to increase participation in daily activities in society and in social interaction with others.
- Identifying the individual's perceived balance/imbalance between restful, playful, self-care, work or other productive occupations and assisting him or her in making desired changes.
- Identifying what aspects of meaningfulness the person experiences in daily occupations, for example during a week, and if a balance is perceived between these different aspects. Discussing with the individual how to organize and engage in occupations that could give him or her a everyday life with different kinds of experiences of meaningfulness, and when necessary giving adequate support.

- Assessing whether the challenges put by the daily occupations seem to optimally match the person's skills and his or her occupational goals and interests, i.e. if the individual's occupations are perceived as the just-right challenge. If not, identifying the reasons why, and make interventions that support the individual in finding the just-right challenges in daily occupations.

Study IV resulted in a tentative model describing aspects of perceived meaningfulness in work, in terms of employment. Even though the model has to be investigated further in future research, the aspects of meaningfulness found could be used when planning interventions for individuals with PMI aimed at maintaining or providing a new job, a supported employment, or other meaningful occupations in daily life. Various intervention strategies could be used to enhance an individual's opportunity to perceive meaningfulness in work or other daily occupations and facilitate for them to find a job matching their interests and capacity. The results from Study IV could be implemented in clinical work among people with PMI in the following ways:

- Giving salary or other forms of payment for accomplished work and discernible vacation periods.
- Making sure that there are time schedules and routines at the workplace or activity centre, and adapting them individually if needed. Evaluating and adjusting these schedules so that they give the best possible structure to the day and week, thereby facilitating the establishment of a balanced daily life and a beneficial daily rhythm.
- Analysing and discussing the tasks and environmental demands together with the client and with staff from the workplace or activity centre, and striving for the most optimal match with the individual's capacity, interests and skills, so that a feeling of having the just-right challenge is enhanced.
- Finding tasks that the client perceives as creative and stimulating, leading to personal development and involvement in a working process, as well as tasks that give the individual some kind of feedback or result that makes him or her feel useful and needed.
- Focusing on social arenas at the workplace or activity centre and providing help and support to the client to become involved in different social arenas, both for fun and for productive purposes, in order to enhance a feeling of belonging.

Implications for future research

The present thesis has highlighted some aspects, listed below, that need to be further investigated concerning time spent in daily activities, their relationships to well-being, and perceived meaningfulness in daily occupations.

- Time use in daily activities, and daily rhythm, needs to be further and systematically investigated in relation to life-cycle variations among people with PMI.
- Symptom severity, especially concerning general symptoms, in relation to time spent in daily activities and daily rhythm needs to be further investigated
- Assessment tools need to be developed that enable assessment of perceived meaningfulness in daily occupations among people with PMI, and that can be used as an outcome measure together with other assessments of well-being.
- Further investigation needs to be undertaken of how occupational balance between different aspects of meaningfulness could be described and achieved, and of possible relationships to well-being.

- Investigate further the way in which people with PMI use different occupations in their daily life as means for maintaining well-being, as well as their reasoning about these occupations in relation to recovery and experiences of meaningfulness.
- Further investigation of the spin-off effects that engagement in occupations may bring is warranted within several areas and among different kinds of populations, including future research among people with PMI.

Svensk sammanfattning (Summary in Swedish)

Arbetsterapeuter arbetar efter ett grundläggande antagande om att vardagens aktiviteter är viktiga för människors välbefinnande och hälsa. Om aktiviteterna upplevs som meningsfulla och om det finns en balans mellan dem, kan detta bidra till ett ökat välbefinnande. För människor som drabbas av långvarig psykisk sjukdom/psykiska funktionshinder kan det vara extra svårt att engagera sig i aktiviteter i vardagen och hitta såväl balans som meningsfullhet, eftersom det innebär att leva med och hantera olika symptom, känslor, trötthet och biverkningar av mediciner. Detta får konsekvenser för förmågan att utföra de dagliga aktiviteterna och för många innebär sjukdomen/funktionshindret ett ”avbrott” i livet och inget är sig längre likt.

Två grupper som ofta får leva med livslånga psykiska funktionshinder som påverkar deras livssituation och dagliga aktiviteter är personer som fått diagnosen schizofreni eller bipolär (manodepressiv) sjukdom. Tidigare studier har även visat att dessa personer ofta mister kontakten med personer i sina sociala nätverk och blir relativt isolerade, och om man inte kan arbeta eller delta i någon daglig verksamhet blir vardagen relativt snabbt ostrukturerad med få meningsfulla aktiviteter. Tidigare internationella studier som undersökt och beskrivit tidsanvändning hos personer med psykiska funktionshinder visar att dessa personer sover mycket och tillbringar stor del av sin tid enbart i hemmet, de har ofta få fritidsaktiviteter och sällan ett arbete. För en del personer är arbete inte det primära målet eftersom det kan upplevas för krävande och stressigt i relation till den psykiska funktionsförmågan, men många personer med psykiska funktionshinder påtalar ett önskemål om arbete, eller andra typer av meningsfull aktivitet att ägna sig åt i sin vardag för att må bra.

Syftet med denna avhandling har varit att undersöka hur personer med långvarig psykisk sjukdom/psykiska funktionshinder (>2år), använder sin tid och på vilket sätt olika aktiviteter och dygnsrytm kan vara relaterat till hälsa och välbefinnande. Vidare har syftet varit att undersöka denna grupps upplevelser av meningsfullhet i aktivitet i vardagen, med ett särskilt fokus på arbete. Detta är särskilt angeläget med tanke på att meningsfulla aktiviteter efterfrågas av dessa personer, samtidigt som ett flertal kommuner i Sverige fortfarande inte har lyckats fullt ut med att tillgodose sådana behov och önskemål. Socialstyrelsen redovisade i sin nationella slutrapport gällande kommunernas insatser för personer med psykiska funktionshinder att många personer vill ha mer meningsfulla aktiviteter i sin vardag. Kunskap om vad som upplevs som meningsfulla aktiviteter bör därför vara efterfrågad, och det är högst angeläget att vidareutveckla olika inriktningar av dagliga verksamheter och rehabiliteringsmöjligheter för att tillgodose dessa behov.

Urval, metod och resultat i avhandlingens fyra delstudier

Denna avhandling är baserad på två delprojekt: ett huvudprojekt som syftade till att undersöka tidsanvändning i daglig aktivitet och dess samband med hälsa och välbefinnande, och upplevd meningsfullhet i dagliga livets aktiviteter (Studie I–III). Huvudprojektet baserades på ett slumpmässigt urval av personer med långvarig psykisk sjukdom från en psykiatrisk öppenvårdsmottagning. Urvalskriterierna var att de skulle ha haft mer än 2 års kontakt med öppenvårdsmottagningen och vara mellan 20–55 år. Slutligen deltog 103 individer i studien. Femtiosex män och 47 kvinnor och medelåldern var 39 år. Flertalet uppfyllde Socialstyrelsens definition för psykiskt funktionshinder. Deltagarna intervjuades av en erfaren person med hjälp av en aktivitetsdagbok, där de ombads berätta om

vilka aktiviteter de gjorde föregående dygn, vid vilken tid, om aktiviteten upplevdes som meningsfull, och varför aktiviteten var meningsfull. Personerna fick också fylla i olika självskattningsformulär avseende självskattad hälsa, livskvalitet, känsla av kontroll och social interaktion. Intervjuaren samlade även data avseende sociodemografiska faktorer och kliniska faktorer såsom diagnos, symptombild och psykosocial funktionsförmåga. Det andra delprojektet (Studie IV) baserades på ett urval personer med psykiska funktionshinder. Kontakt togs med enheter i två olika kommuner, en på landsbygd och en i en storstad, och kontakt togs även med en psykiatrisk öppenvårdsmottagning för att nå personer med en förfrågan om att delta i studien. Personerna som tillfrågades skulle uppfylla följande urvalskriterier: personerna skulle arbeta minst 25 procent i veckan sedan två månader tillbaka i antingen reguljärt arbete eller offentlig skyddad anställning, vara 18–65 år och ha fått vård eller stöd på grund av sitt psykiska funktionshinder vid enheten. Deltagarna i studien bestod slutligen av 12 personer (sju män och fem kvinnor) med varierande ålder, anställningstid och typ av arbete. Det insamlade materialet analyserades med både kvalitativa och statistiska metoder.

Huvudsakliga resultat angående tidsanvändning (Studie I–II) var att de personer som tillbringade mycket tid under dygnet i aktivitet, såsom arbete/studier och inom daglig verksamhet, personlig vård och skötsel av hemmet och fritid, upplevde bättre hälsa och välbefinnande (bättre känsla av kontroll i sitt liv och högre grad av social interaktion). Ett tydligt mönster framträdde gällande tid som ägnades åt sömn och aktiviteter som kategoriserats som arbete/studier. Personer som sov mycket under dygnet (>10 timmar) upplevde sämre hälsa och välbefinnande, medan de som tillbringade mycket tid i arbete eller arbetsliknande aktiviteter upplevde en bättre hälsa och ett större välbefinnande. Det går dock inte att avgöra om dessa samband berodde på att de personer som spenderade mer tid inom arbete/studier upplevde bättre hälsa och välbefinnande på grund av detta, eller om de som hade lägre grad av psykiska funktionshinder och upplevde ett större välbefinnande, ägnade mer tid åt arbete/studier av den anledningen. Resultaten i Studie IV pekar emellertid emot att arbete upplevs som väldigt meningsfullt och har egenskaper som gör att personer med psykiska funktionshinder upplever att de mår bättre och får ett ökat välbefinnande, i synnerhet om de har ett arbete som upplevs lagom utmanande och stimulerande i förhållande till deras förmåga.

Olika typer av dygnsrytm identifierades bland deltagarna (Studie I–II), och resultaten visade att de personer som var minst aktiva under hela dygnet och de som ”vänder på dygnet” (sov mest dagtid och var aktiva på nattetid), upplevde lägst känsla av kontroll över sitt liv och låg social interaktion. Troligen är det väldigt svårt att ha och behålla sina sociala kontakter om man i huvudsak är aktiv på natten och sover på dagen, när de flesta personer i omgivningen är aktiva. Det kan naturligtvis vara ett medvetet val från individens sida, men det är helt klart viktigt att fokusera på och utvärdera dygnsrytm när man arbetar med personer med psykiska funktionshinder. Detta understryks av resultaten i Studie III, som visade att social kontakt med andra personer, kontakten med husdjur och interaktion med omgivningen på olika sätt var den aspekt av meningsfullhet i vardagliga aktiviteter som rapporterades oftast av deltagarna. Vidare visade det sig att äldre personer (ca 43–55 år) var mer aktiva i vardagliga aktiviteter än de yngre åldersgrupperna (20–42 år). Om dessa fynd beror på en återhämtning eller på en mognad och en ökad förmåga att hantera aktiviteter eller på en anpassning som ökat med åldern går inte att förklara med hjälp av studierna i denna avhandling. Vidare identifierades olika riskfaktorer för aktivitetsobalans i Studie II. De huvudsakliga fynden var att personer diagnostiserade med schizofreni

hade en tre gånger ökad risk att tillbringa lite tid i dagliga aktiviteter i jämförelse med personer med andra diagnoser, som t.ex. långvarig depression eller bipolär sjukdom. En hög grad av generella symtom, såsom ångest, skuldkänslor, spänning och desorientering i tid och rum, var de symtom som utgjorde den största riskfaktorn för aktivitetsobalans. Då spenderade man mindre tid på aktivitet totalt sett över dygnet, lite tid i arbete/studier, ”onormalt” mycket sömn sammanlagt under dygnet och en ogynnsam dygnsrytm. Således är både ålder, diagnos och symtom viktiga faktorer att undersöka och beakta när det gäller utformningen av rehabilitering och stöd till personer med psykiska funktionshinder och/eller långvarig psykisk sjukdom för att de ska kunna uppnå och uppleva aktivitetsbalans i vardagen.

De huvudsakliga resultaten när det gäller upplevd meningsfullhet i vardagens aktiviteter, i vid bemärkelse, undersöktes i denna avhandling (Studie III), och de huvudsakliga fynden kan beskrivas med hjälp av fem huvudteman;

1) Att ha kontakt med andra och att ha kontakt med sin omvärld.
2) Att ha roligt och njuta av livet.
3) Att hålla sig sysselsatt och aktiv och ha rutiner och projekt över tid.
4) Att ta hand om sig själv för att må bra.

Dessa typer av meningsfullhet beskrevs av samtliga personer med psykiska funktionshinder, oavsett om man hade en daglig struktur med arbete/studier, kommunal daglig verksamheter, eller inga/få strukturerade aktiviteter under sin vecka. Det första temat av upplevd meningsfullhet var det som förekom oftast i personernas beskrivningar. Att ha ett socialt liv, ta hand om andra personer eller husdjur och känna att man kunde göra något för någon annan upplevdes väldigt meningsfyllt. Likaså var det meningsfullt att hålla sig ajour med omvärlden genom att se på tv, läsa tidningen eller lyssna på radio. Personerna beskrev också att de ibland bara gick ut på ett café eller bibliotek för att se andra människor. Ibland innebar detta även en typ av avkoppling, men ibland var det främst för att bryta sin isolering eller att individen inte klarade av att interagera med andra människor just då. Att känna glädje och njuta av livet upplevdes ofta när man utövade någon typ av hobby, i socialt liv eller i samband med naturupplevelser och andra sinnesupplevelser, som t.ex. att äta en god måltid. Det tredje temat handlade om att få vara produktiv, se resultat av en aktivitet, känna att man gjort en prestation och en viktig insats. Detta tema innehöll även beskrivningar som handlade om att ha lärt sig något nytt och att ha utvecklats när man presterat i en aktivitet. Det fjärde temat innehöll beskrivningar som handlade om att vara engagerad i en aktivitet var meningsfullt i sig själv, dvs. att ”ha något att göra”, men även om vikten av att ha en struktur i vardagen med rutiner och olika projekt och mål över tid. Rutiner, såsom att stiga upp ett visst klockslag, gå till en verksamhet en viss tid eller att ha andra återkommande rutiner, upplevdes som meningsfullt. Det sista och femte temat handlade om att göra vissa aktiviteter för att man mådde bra av dem och förbättrade sin hälsa och sitt välbefinnande genom att utföra dessa aktiviteter. Det handlade dels om aktiviteter som fyller grundläggande behov, såsom att äta, sova och vila, dels om andra aktiviteter som var meningsfulla för att man kände att man mådde bättre psykiskt och fysiskt av dem, som t.ex. att utöva en sport, meditera, måla eller ta ett långt skönt bad. Dessa strategier och kunskaper om aktiviteters terapeutiska egenskaper som dessa personer med sina livserfarenheter hade utvecklat en kunskap om, vore ytterst intressant att utforska vidare. Det finns tidigare studier som visar att fysisk aktivitet kan motverka depression och olika stresstillstånd, men denna studie visade att även andra aktiviteter kan ge denna typ av meningsfullhet och hälsoeffekt.

Resultaten gällande upplevd meningsfullhet i arbete hos personer med psykiska funktionshinder resulterade i en preliminär förklaringsmodell innehållande fyra olika teman (Studie IV). Tema 1 handlade om att arbete upplevdes meningsfullt därför att *arbete innehåller särskilda karaktäristika* såsom att få lön, ha betald semester, att få utföra ”riktiga” arbetsuppgifter och känna sig nyttig och ha en funktion, samt vara delaktig i en arbetsprocess och ingå i en arbetsgemenskap. Tema 2, *delaktighet i olika sammanhang ger en känsla av normalitet, acceptans, tillhörighet och att man uppfyller normer och värderingar,* innehöll beskrivningar och upplevelser som handlade om att arbete var meningsfullt därför att det gav en känsla av att ”göra rätt för sig” och bidra med sin insats till något större, vilket gjorde att de kände sig värdefulla i både sina egna och andras ögon. Deltagarna uttryckte också i positiva ordalag att de kände att de levde ett normalt ”Svensson-liv” när de arbetade. De upplevde också att arbete var meningsfullt för att det gav dem en känsla av att uppfylla förväntningar och möta värderingar som fanns i den socio-kulturella miljön, och som de också beskrev att de fått med sig ända från barndomen. Känna tillhörighet i en arbetsgrupp och ha roligt tillsammans med sina arbetskamrater lyftes också fram, och ibland var arbetet även meningsfullt därför att det innebar nya sociala kontakter. Tema 3, *arbete ger struktur, energi och ett balanserat liv*, innehöll beskrivningar om att arbete gav struktur i vardagen med sina specifika tider och scheman att följa, vilka värderades och hjälpte deltagarna att behålla en normal dygnsrytm. Arbete upplevdes också meningsfullt för att det gav en balans mellan arbete och fritid, och synliggjorde fritiden så att den blev mer värdefull. Deltagarna menade att om man inte arbetar så kan man inte heller se och värdesätta någon fritid – känslan av fritid förutsätter ett arbete. En annan typ av eftersträvansvärd balans var att arbetet, dess miljö och dess uppgifter skulle på ett bra sätt matcha individens intressen och förmågor, detta tolkades som att ”precis lagom utmaning” genererade meningsfullhet. En typ av ”spin-off-effekt” av arbete identifierades också, vilket innebar att deltagarna upplevde att de blev mer aktiva även under andra tider och i andra aktiviteter än arbetet, precis som om arbetet satte igång ett energiflöde hos dem. De hade även upplevt motsatsen tidigare då de inte hade arbete, dvs. att passivitet genererade ännu mer passivitet och en känsla av hopplöshet. Det sista och fjärde temat, *upplevelse av ett ökat välbefinnande och en stärkt identitet*, handlade om att deltagarna beskrev att arbete var meningsfullt därför att de upplevde att de fick bättre hälsa, minskade symtom och ett ökat välbefinnande. De upplevde också att deras självkänsla ökade och att identiteten stärktes.

Kliniska implikationer

Resultaten från studierna I–III i denna avhandling ger följande förslag på bedömnings- och interventionsstrategier som skulle kunna tillämpas av arbetsterapeuter och andra inom olika rehabiliteringsverksamheter i arbetet med personer med psykiska funktionshinder.

- Gör en intervju och en bedömning av klienten och hans eller hennes tidsanvändning i dagliga aktiviteter, t.ex. med en aktivitetsdagbok. Undersök också om aktiviteterna upplevs meningsfulla och vilka önskningar och mål gällande aktivitet i vardagen som kan sättas upp. Ägna särskild uppmärksamhet åt hur eventuella generella eller negativa symtom kan tänkas påverka klientens aktivitetsförmåga och aktivitetsmönster.
- Analysera och identifiera vilken struktur på dagen som klienten har, i form av rutiner under en vanlig dag eller en hel vecka. Diskutera möjligheter till förändringar i vardagen om klienten skulle vilja det. Ge stöd och insatser till klienten så att

han/hon kan strukturera sin dag på ett ändamålsenligt sätt och i möjligaste mån följer naturliga cykler med ljus och mörker, eftersom det ökar deras möjligheter till delaktighet i vardagliga aktiviteter i samhället och till sociala kontakter med andra.
- Gör en bedömning av om klienten verkar uppleva balans eller obalans mellan olika aktiviteter, när det gäller vilsamma aktiviteter, fritidsaktiviteter, personlig vård och skötsel av hemmet och arbete. Ge stöd till förändring och rehabiliterande insatser om klienten upplever en obalans och vill förändra något i vardagen.
- Analysera och identifiera vilka aspekter av meningsfullhet som klienten upplever i sina dagliga aktiviteter och om han/hon upplever att det finns en balans emellan dessa meningsaspekter. Diskutera om och hur han/hon skulle vilja organisera sin tid för att ha optimalt med meningsfulla aktiviteter i sin vardag – en variation som passar dem och deras livsstil. Ge stöd och rehabiliterande insatser med målet att klienten ska uppleva att vardagens aktiviteter innehåller olika aspekter av meningsfullhet.
- Göra en bedömning av om de vardagliga aktiviteter som klienten utför, t.ex. i hemmet, på fritiden eller på en daglig verksamhet, verkar utgöra ”precis lagom utmaning”. Diskutera med klienten om aktiviteterna känns stimulerande, för lätta eller för svåra, intressanta m.m. Föreslå åtgärder till förändringar som stödjer individens möjligheter att uppleva att vardagens aktiviteter känns lagom utmanande och ibland ger en upplevelse av ”flow”.

Studie 4 resulterade i en preliminär modell för upplevd meningsfullhet i arbete, och dessa fynd skulle bl.a. kunna tillämpas i rehabiliterande insatser för återgång i arbete, eller i samband med olika insatser för att åstadkomma arbetsliknande verksamhet för personer med psykiska funktionshinder.

- Tillhandahålla lön eller annan typ av förmån för genomfört arbete samt avgränsade perioder med semester och ledighet.
- Tillgodose struktur, tidsschema och rutiner på verksamheten som alla har kännedom om, och gör individuella förändringar inom dessa scheman då det behövs. Utvärdera och justera klientens individuella tider och veckostruktur med målet att klienten ska ha den mest optimala strukturen på sin vecka för att kunna uppleva sig ha aktivitetsbalans och en gynnsam dygnsrytm.
- Bedöma och analysera de krav och färdigheter som arbetsuppgifter och arbetsmiljö verkar ställa. Diskutera aktivitetsanalysen tillsammans med klienten, och eventuellt med övrig personal. Sträva mot att tillsammans med klienten komma fram till den mest optimala matchningen mellan individens kapacitet, intressen och färdigheter och arbetets krav, så att klienten upplever att krav och förmågor är i balans. Aktiviteterna ska således varken ha för låga krav eller för höga krav.
- Arbetsuppgifter ska i stor utsträckning upplevas som stimulerande, kreativa, leda till att personen upplever att de utvecklas och är involverade i en arbetsprocess från ”ax till limpa” och att de är en viktig del i denna process. Återkoppling i form av ett resultat behövs för att skapa en känsla av att vara behövd och att ha utfört ett arbete som fyller en viktig funktion.
- Fokusera på och gör en bedömning av det sociala klimatet och de sociala arenor som finns på arbetsplatsen eller verksamheten, och ta fram stöd och insatser som underlättar och möjliggör för klienten att ingå i den sociala gemenskapen och känna tillhörighet i gruppen, både för att ha roligt och för genomförandet av arbetet.

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