

# POES

## Profiles of Occupational Engagement in people with Schizophrenia



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## ***Introduction***

A time-use diary is a measurement tool that provides a glimpse of the actual lifestyle and help to estimate occupational engagement and serve as a realistic point of departure when designing and following up an intervention among persons with schizophrenia (Bejerholm & Eklund, 2004; Bejerholm & Eklund, 2006b). By using a time-use diary that covers occupational, personal and environmental factors, the therapist can collaborate with clients to gain insights about supports and barriers to satisfaction throughout the day (Backman, 2001). Still, to interpret and make use of a time-use diary in the evaluation process takes a large amount of time, and the understanding coming out from such an assessment is likely to be rich, with many loose threads. The richness of information may not be easy to conclude or communicate with the fellow colleagues. There is also an inevitable risk that the undefined data-collection and assessment could lead to vague treatment.

Consequently, POES developed to gather and conclude information about occupational engagement in persons with schizophrenia. The instrument can provide the therapist with systematic data about progress and status of engagement and balance in daily occupations (Bejerholm & Eklund, 2006a).

The reason for developing a disease and client specific measurement tool like POES is that many of the questions in generic scales might not be appropriate or relevant for one specific group, and people with schizophrenia may have difficulty in completing the rigors of the standardised test protocols. Thus many items regarding measurement of occupational performance may not be useful, contributing to nothing but noise for persons with schizophrenia.

In POES, the items emanate from research regarding the occupational life in a group of persons with schizophrenia (Bejerholm, submitted; Bejerholm & Eklund, 2004; Bejerholm & Eklund, 2006b; Bejerholm, Hansson, & Eklund, 2006; Eklund, Leufstadius, & Bejerholm, submitted). In that respect, the items are likely to have relevance for this group of persons and would be applicable within the field of psychosocial occupational therapy practice.

## ***POES***

POES can help occupational therapists to attend to and ensure that a great variety of aspects that concerns occupational engagement are considered in order to make a comprehensive evaluation and plan for intervention that supports mental health and well-being. POES consists of a Part I, a Part II, and a Part III. Part I involves the data-collection by means of the 24-hour yesterday time-use diary with a supplementary interview. Part II involves the assessment of the information gathered in Part I. It includes nine items, which can be rated according to ranked categories from 1 to 4. In clinical practice, the POES estimation can be plotted in a graph, giving a visual summary that preferably may

be interpreted by the client and the assessor jointly. In research, the sum score may be used for statistical tests. The POES sum scores may range between 9 and 36, and there could be considered to be three subgroups based on this range, low (9-18), medium (19-27), and high (28-36) level of engagement (Bejerholm & Eklund, 2007). Part III involves the estimation of time use in relation to occupational balance according to three items, being under-occupied, being over-occupied, and having occupational balance.

## ***Part I***

### **The Time-Use Diary**

It is an advantage to use a 24-hour yesterday time-use diary combined with a supplementary interview when a person has sensory and cognitive impairments that would hinder the person's completing a so-called self-generated diary (Lawton, 1999). Furthermore, when little time has passed between the performance in question and the client's recording, the course of event tends to be still fresh in mind (Bejerholm & Eklund, 2004), any bias effect of the exaggerated reporting of socially acceptable activities also being likely to be at a minimum (Robinson, 1977).

Part I, the data-collection, involves both the client and the occupational therapist. The client is asked to provide an account of the use of time during the previous 24 hours. As much data as possible should be filled in by the client on his or her own, thus the diary should be administrated as a self-report questionnaire at an initial stage. The therapist goes on to perform a supplementary interview that works as a cognitive aid and helps the client to recall the chronological orders of the events and the experiences associated. The recall questions involved in the interview shall emanate from what is written down or not written down in the diary. The aim here is to complete the diary to as a large extent as possible. To what extent the client is capable of filling in the diary at the time is decisive and directive for how comprehensive the supplementary interview has to be. Thus, there is an interchange between the client and the therapist regarding the completion of the diary. In order to assess occupational engagement, several time-use diaries should be gathered until saturation is reached regarding information about the client's current living situation.

The diary sheet that is used contains four columns, each provided with separate rows representing one-hour intervals. See Figure 1. A question appears at the top of each column. The first one, on the left, concerns what the client has been doing, the daily occupations, the second the social environment, the third the geographic environment, and the fourth column is for personal comments or reflections on the experience.

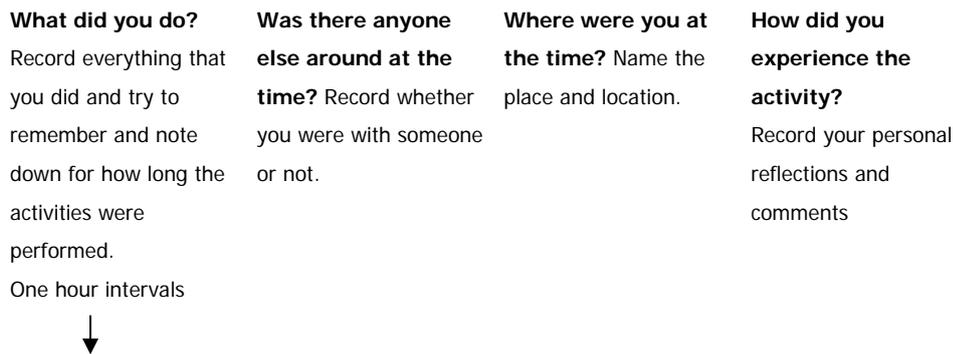


Figure 1. The underlying structure of the 24-hour time-use diary in use.

## Part II

### Occupational Engagement

The umbrella concept in POES is occupational engagement. The construct of occupational engagement is viewed as a lifestyle characteristic and involves occupational performance, the dynamic interplay between personal, occupational, and environmental factors (Law et al., 1996). Occupational engagement describes the extent to which a person has a balanced rhythm of activity and rest, a variety and range of meaningful occupations, and routines, and the ability to move around in society and interact socially, implying that occupational engagement occurs over time. Moreover, occupational engagement involves interpretation and comprehension emanating from experience (Bejerholm & Eklund, 2006b), the process that forms the basis for ongoing occupational engagement and a cyclical means of maintaining a sense of self and well-being (Rebeiro & Cook, 1999).

It is important to identify profiles of how people engage in occupations, whether the way of engaging in occupations is satisfying, or why performing them in a certain way or in a certain place is significant for that individual.

#### The items in use

The items in POES have an intricate relationship with the concept of occupational engagement and each item adds up to a new piece of information regarding how people engage in occupations (Bejerholm & Eklund, 2006a).

The item *Daily rhythm of activity and rest* concerns an overall picture of engagement, including how rest/quiet activities are distributed in relation to more active participation in occupations throughout the day. The ranking categories range from a daily rhythm characterised by withdrawal and disengagement to ongoing engagement in occupations throughout the day.

The item *Place* is viewed as the setting or location in which occupational performance occurs and refers to the extent to which places are visited and used, and roughly what kind of places they are. The ranking categories range from spending time in mainly one place to spending time in a variety of places and moving without hindrance in society.

The item *Variety and range of occupations* sets the scene regarding the type of occupations performed. The ranking categories range from little variation between and little range within the occupations performed, to variation between and a wide range within the occupations performed.

The item *Social environment* concerns the occurrence and type of social environments. The ranking categories range from spending most time alone to spending time in a variety of social environments without hindrance.

The item *Social interplay* refers to the extent of social interplay or interaction that occurs. The ranking categories range from not being very socially responsive, where others often initiate interplay, to being socially responsive and collaborating with others in a reciprocal relatedness.

The item *Interpretation* refers to the extent to which the client interprets and reflects on occupational experience. It concerns the client's identification with action and comprehends the experience it evokes. The ranking categories range from a low degree of interpretation and making sense of experience to interpretation that is ongoing and where the occupational experience is reflected on in a nuanced way.

The item *Extent of meaningful occupations* indicates what occupations that is likely to be associated with an increase of meaning or purpose at each ranking category. The ranking categories range from being barely engaged in occupations which can be recognised as being meaningful, to being engaged in a variety of occupations with that quality.

The item *Routines* refers to the extent of routines and organisation of the occupations. The ranking categories range from few organised routines, apart from fulfilling immediate needs, such as hunger, to a flexible routine dealing with environmental and occupational contingencies.

The item *Initiating performance* refers to what initiates and triggers performance. The ranking categories range from initiative that is triggered mostly by others or by immediate needs with a proximal goal, to engagement that is mostly self-initiated, but also with initiative embedded in the occupational roles.

### **Part III**

This estimation of occupational balance is a supplementary estimation to occupational engagement. This estimation helps the assessor to find out whether or not the client is in an optimal living situation, regardless of what kind of profile of engagement that person has. The standpoint here is that a certain profile of occupational engagement may not be related to a healthy balance in a systematic way. A profile with little engagement does not automatically mean having an imbalance. In fact, it may be the optimal occupational situation for that client in that very situation in life. Thus, a time use and occupational intervention would not be a necessity at this stage. Furthermore, to have balance is highly individual and is also likely to vary and change over time and in different occupational contexts. The extraordinary vulnerability to the risk of being under-occupied with few occupational opportunities and a non-stimulating social environment, and the risk of being over-occupied with too much stimulation from an intrusive environment may be viewed as aspects of disability in people with schizophrenia (Bejerholm & Eklund, 2007; Hirsch, 1976; Liberman, Neuchterlain, & Wallace, 1982). Since rehabilitation seems to involve constantly walking the line between being over- or under-occupied, it is vital to estimate whether the client seems over- or under-occupied or in occupational balance regarding the interaction of personal, environmental, and occupational factors, occupational performance over a period of time (Backman, 2004; CAOT, 2002; Christiansen & Townsend, 2004; Csikszentmihalyi, 1997). The estimation of occupational balance, as demonstrated in this study, could help to distinguish whether the quiet and withdrawn activities enhance or hinder occupational engagement, and thus help elucidate whether a change in time use pattern would be a vital part of recovery. The items has been shown to have good inter-rater reliability (Bejerholm, submitted).

### ***Psychometric properties of POES***

Content validity, construct validity, internal consistency and inter-rater reliability has been established in research (Bejerholm & Eklund, 2006a; Bejerholm et al., 2006), although this is an ongoing process and context specific. The content validation was divided in two steps and involved 10 experts from both the clinical and the scientific field of occupational therapy. Two of the experts were from Great Britain. The inter-rater agreement was good and the homogeneity of the items was high, pointing to a direction that POES measures the same underlying concept, namely occupational engagement. In the construct validation POES were closely related to GAF, Global Assessment of Functioning. Furthermore, a high level of occupational engagement has been shown to be related to higher ratings of self-related variables, fewer psychiatric symptoms, and better ratings of quality of life, and vice versa (Bejerholm & Eklund, 2007)

In all, before using POES it is recommended the associated medical articles are read and interpreted: (Bejerholm & Eklund, 2004; Bejerholm & Eklund, 2006a, 2006b; Bejerholm & Eklund, 2007; Bejerholm et al., 2006)

# POES

## CLINICAL RECORD

Client's name: \_\_\_\_\_

Gender: \_\_\_\_\_

Living situation and environment: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Number of time use diaries gathered

weekdays: \_\_\_\_\_ days in weekend: \_\_\_\_\_

Assessor: \_\_\_\_\_

Date: \_\_\_\_\_

The usage of POES can be repeated along with personal changes, such as when the disorder of schizophrenia improves or worsens, or when the occupational context changes. POES can also help to estimate changes in the profile of occupational engagement over time.

## Part I

<b>What did you do?</b>	<b>Was there anyone else around at the time?</b>	<b>Where were you at the time?</b>	<b>How did you experience the activity?</b>
Record everything that you did and try to remember and note down for how long the activities were performed.	Record whether you were with someone or not.	Name the place and location.	Record your personal reflections and comments
One hour intervals			
↓			

Figure 1. The underlying structure of the 24-hour time-use diary in use.

**Part II** is applied on the gathered information and the assessment generates a profile of occupational engagement. The assessment is performed by the occupational therapist and is then communicated to the client.

<b>daily rhythm of activity and rest</b>			
<i>Circle the level/number that suits the client's situation</i>			
1	2	3	4
<p>The occupations performed are characterised by withdrawal and disengagement.</p> <p>The quiet activities* prevail and they mean being in state of not interacting much with the environment. They do not seem to have a relation or a recreational purpose to the rest of the day. Sleep is also likely to be a result of this state.</p>	<p>The occupations performed are characterised by somewhat an even mix of periods of withdrawal and disengagement and periods of engagement.</p> <p>Within the periods of disengagement, the quiet activities mostly mean not interacting with the world around. The quiet activities could be a result of having nothing else to do, and they have little purpose or relation to the rest of the day. Within the periods of engagement the quiet activities tend to have a relation functional to the other occupations performed.</p>	<p>The occupations performed are mostly characterised by activity and engagement.</p> <p>The quiet activities have a character of rest and often give the day a slow pace. Still, they do not lead to withdrawal in a negative sense. Furthermore, they are intertwined with the rest of the day, more evenly spread, and often have a relation functional to the other occupations performed.</p>	<p>The occupations performed are characterised by ongoing engagement in occupations throughout the day.</p> <p>The quiet activities occur in the shape of rest or a break. They have a recreational purpose and do not give the day a slow pace. Furthermore they are intertwined with the rest of the day, and have a relation functional to the other occupations performed.</p>

<b>places</b>			
1	2	3	4
<p>Spends time in mainly one place.</p> <p>The client does rarely leave the living base, like the home environment or some other not too demanding environment, such as a ward, for longer periods of time. Some occasional visit to public places related to fulfilling immediate need, such as being hungry or having the urge to smoke, may occur.</p>	<p>Spends time in a limited amount and sort of places.</p> <p>The client does not leave the living base during the more quiet periods of the day. The more active periods are likely to be spent in day-care centres or other care facilities, at a friend's or a family member's house. Public places nearby are likely to be visited. Leaves the living base and seeks places for reasons other than to satisfy immediate needs.</p>	<p>Spends time in several places.</p> <p>The client does not usually spend excessive amount of time in the home environment. Often environments that support participation in societal settings are visited. Moves around in public places like shops, cafés, restaurants, and post offices, not only in the neighbourhood but sometimes also to destinations further away from home.</p>	<p>Spends time in a variety of places and moves without hindrance in society</p> <p>The client does leave the living base for at least some period of time every day and the places are ranging from more private to more public places, associated with engagement in occupations.</p>

\* Quiet activities refer to occupations performed in a physically and mentally inactive way. The person is likely to be sitting or lying down observing the social or physical environment without interacting, for various amounts of time. However, the function of performing quiet activities varies in accordance with occupational engagement

<b>variety and range of occupations</b>			
1	2	3	4
<p>There is little variation between, and little range within the occupations performed.</p> <p>The types of occupations performed can be sitting or lying down, not interacting with the environment. Sleeping is also likely to occur. These quiet and tedious situations are interrupted by rather inactive and solitary types of occupations that are likely to be personal care and consist mostly of satisfying immediate needs associated with smoking, eating, drinking and so forth. Some minor household chores may occur. Also, sometimes consuming mass media can be a part of the day.</p>	<p>There is some variation between, and some range within the occupations performed.</p> <p>The types of occupations performed can be sitting, lying down, taking little interest in the environment, sometimes sleeping. Other occupations can be personal care, such as eating and drinking, some household chores, consuming mass media, reading books and listening to music at home. Seeking up and being in a non-demanding social environment is also likely to be a part of the day. The occupations are often random without a predetermined goal.</p>	<p>There is variation between, and range within the occupations performed.</p> <p>The types of occupations performed sometimes include productive element. Household chores and personal care are performed on a regular basis. Sometimes physical recreation or other restful activities like listening to music, consuming mass media and socialising occur. Also, performing a few and quiet activities, without losing track of the day, can be a part of the repertoire.</p>	<p>There is a variation between, and a wide range within the occupations performed.</p> <p>The types of occupations performed include work, study or other productive activities on a regular basis. Personal care, householdwork and often some physical recreation or some restful activities, like listening to music, consuming mass media, and socialising are common.</p>

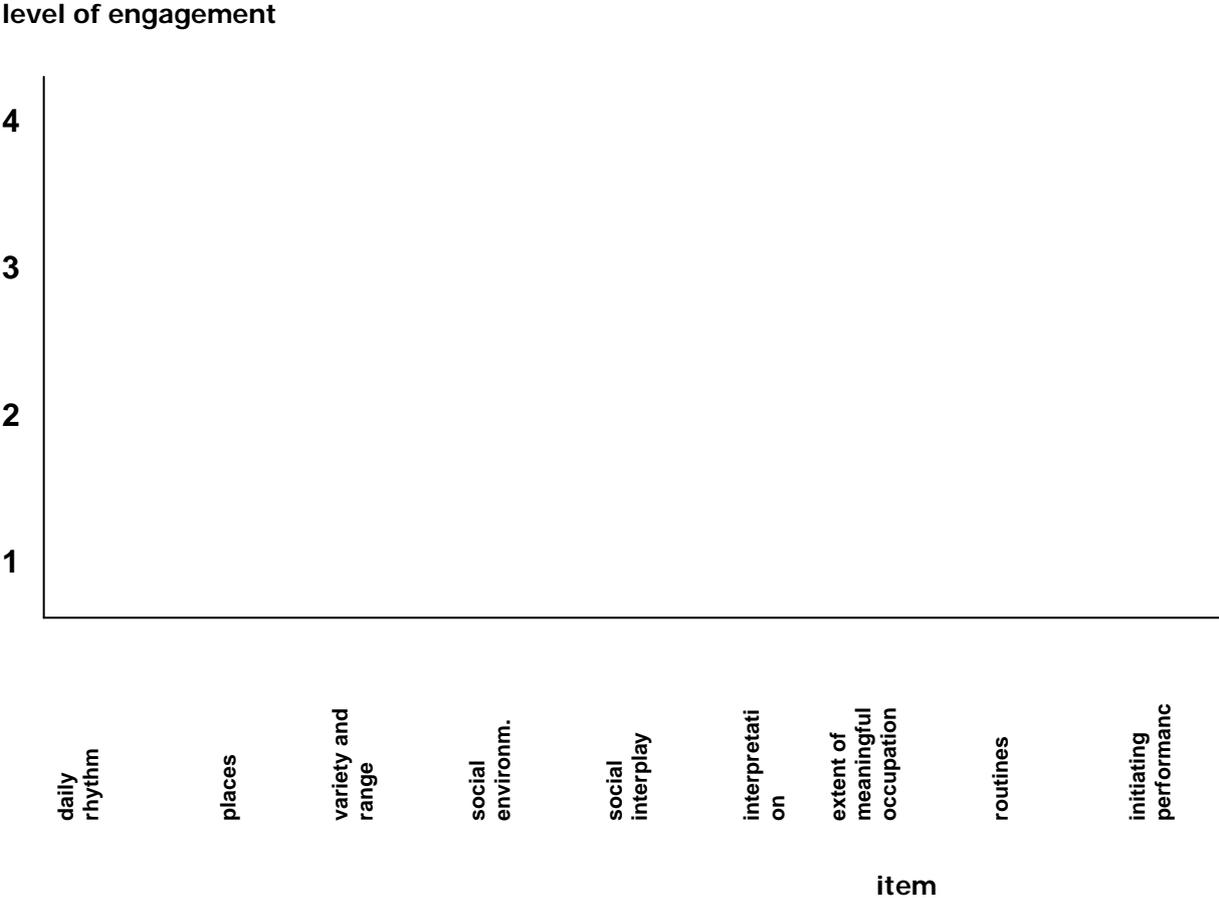
<b>social environment</b>			
1	2	3	4
<p>Spends most time being alone.</p> <p>If a social contact occurs, it is most likely to be with a professional from the care system or a friend in a similar living situation, or a family member. Only occasionally, television or radio adds a social dimension to the home environment. The social environment is mostly associated with the role as a disabled person.</p>	<p>Spends some time being alone, while some of the time is likely to be spent in a non-demanding social environment.</p> <p>The social contact is likely to occur with professionals from the care system or a friend in a similar living situation, or a family member. Television or radio often adds a social dimension to the home environment, and could be reflected having company. The social environment exerts few social demands.</p>	<p>Spends time in a social environment that is supportive to participation. Does also spend time alone.</p> <p>The social contacts are often friends, family, or other cohabits in a group home, or professionals, being a part of a social environment that come across as supportive to participation in occupations. The client often has some social contacts or relationships.</p>	<p>Spends time in a variety of social environments without hindrance.</p> <p>The social contacts often consist of a more private network outside the care system. Different roles associated with being a capable person are shaped by the social contacts, which occur within a variation of different social environments. The client has social relationships with other persons.</p>

<b>social interplay</b>			
1	2	3	4
<p>There is hardly any social interplay occurring while being in any kind of social environment</p> <p>The client seems to be detached from others and is not very socially responsive. If social interactions occur they often initiated and maintained by others. The social environment is rather observed than interacted with. The social environment does not seem to be related to a sense of belonging, but is often imposed on them via the care system, a relative etc.</p>	<p>There is some social interplay occurring, mostly while being in a non-demanding social environment</p> <p>The client seems to be socially responsive in a way that is characterised by simply sharing space and belonging with other persons without much verbal communication. Seeking up a non-demanding social environment is common. When social interplay do occur, the interaction is most likely to be initiated and maintained by others. The interaction is usually limited to small-talk rather than whole conversations or sharing occupational performance.</p>	<p>There is social interplay occurring, mostly while being in a social environment that is supportive</p> <p>The client seems to be interacting with other persons. Sharing some kind of occupational performance is likely to take place as well as small-talking or having a conversation. Often the social environment is equipped to facilitate social interplay in a habitual manner.</p>	<p>There is social interplay occurring in any social environment</p> <p>The client is being socially responsive and collaborates with others, seems to have an impact on the social life and the other way around. The social interplay seems to be reciprocal. The social environment provides a sense of belonging and the care system plays a minor role in their social network.</p>
<b>interpretation</b>			
1	2	3	4
<p>Does not really interpret and reflect on any of the occupational experience</p> <p>The client seems to be unconcerned and does not <i>make sense of the experience</i>*. When reflections are noted they are often negative, such as feeling empty, being worried or wanting to escape the reality. After satisfying immediate needs, or when external motivation stops, the engagement in occupations usually ends and no further reflection seems to take place. The reflections and reactions on occupational performance are limited if any, and do not relate to a sense of meaning.</p>	<p>Interprets and reflects on the occupational experience to a limited extent</p> <p>At times the client seems to be unconcerned and does not reflect on experience. At times, there are some experiences that are interpreted and comprehended, which leads to making some sense of experience. The reflections are mainly neutral, but sometimes negative, about not having anything to do, or about feeling empty, or wanting to escape the reality. Although, some positive experience is likely to occur, which may set off an activity peak.</p>	<p>Interprets and reflects on occupational experience to some extent</p> <p>In general, the client does not seem to be unconcerned. It seems that some of the experience leads to that the client makes sense of it. Making sense of the experience also seems to facilitate engagement to some extent. The reflections and reactions on performance are stated as being mostly neutral, but also positive and negative statements occur.</p>	<p>Does interpret and reflect on occupational experience</p> <p>The client reflections are rather nuanced and are likely to involve both negative and positive interpretation. There seems to be an on-going verification regarding performance.</p>

\* Making sense of the experience refers to reflecting on, interpreting and comprehending the occupational performance and the experience it evoked. This identification with action, brings forth the ability to perceive and make view of self, a process that is likely to contribute to meaning-making.

<b>extent of meaningful occupations</b>			
1	2	3	4
<p>Barely engaged in occupations that can be recognised as being purposeful or meaningful to the client</p> <p>The occupations performed are possibly associated with the purpose of merely fulfilling immediate needs.</p>	<p>Engaged in a few occupations that can be recognised as being purposeful or meaningful to the client</p> <p>The occupations performed can be associated with a sense of meaning or purpose at some point during the day. These occupations can be about just being, or sharing and spending time in a social environment, or perhaps consuming mass media or having a meal.</p>	<p>Engaged in several occupations that can be recognised as being purposeful or meaningful.</p> <p>Several occupations performed can be associated with a sense of meaning or purpose, often enclosed in the some structure and habit of the day. They involve some productive elements or having company, being a part of something.</p>	<p>Engaged in a variety of occupations that can be recognised as being purposeful or meaningful.</p> <p>The occupations performed involve a sense of meaning or purpose to a larger extent. They are likely to be about being of use and of belonging, or simply experiencing pleasure</p>
<b>routines</b>			
1	2	3	4
<p>No routines seems to maintain or direct performance in an engaging manner</p> <p>There is a problem in organising occupations. If an occupation is performed in a more habitual manner, it revolves around the food-intake and other minor chores, mostly enhanced by another person.</p>	<p>Has somewhat a chaotic routine and often ends up in situations rather than being planned</p> <p>There is some presence of organisation of occupations occurs during the active periods, but occupations performed randomly are predominant.</p>	<p>Has rather established routines</p> <p>The occupations are performed in a somewhat habitual manner. For some clients they impose external time structures and sometimes monotony.</p>	<p>Has well-established and flexible routines.</p> <p>The organisation of occupations is run and maintained independently and often in co-operation with other person's routines.</p>
<b>initiating performance</b>			
1	2	3	4
<p>Engagement in occupations is rarely planned but initiated by others or by immediate needs.</p> <p>The few active periods of the day are often triggered by others or by immediate and basic needs with a proximal or immediate goalsetting. The quiet periods of the day are self-created but no real initiative is taken here.</p>	<p>Engagement in occupations is self-initiated at times, but seldom predetermined</p> <p>The active periods of the day are self-initiated by immediate needs or mostly wanting to be in a social environment. Other persons also motivate engagement at times. The occupations performed within these active periods are rarely predetermined, and mostly a result of the spin-off effect associated with previous engagement. Thus, the proximal goalsetting and randomly performed occupations are predominant.</p>	<p>Engagement in occupations is often self-initiated and predetermined in relation to the occupations performed</p> <p>Several occupations are self-initiated. Some occupations can be prompted and adapted by a supportive environment in the initial place.</p>	<p>Engagement in occupations is mostly self-initiated and emanates from the occupational roles</p> <p>The performance is often goaldirected, predetermined and seems to be directed toward an intended end-result over time. The occupational role related to performance is often directive to when and how initiative to performance is taking place. Direction is also given by taking pleasure in doing.</p>

**Profile of Occupational Engagement- a visual summary**

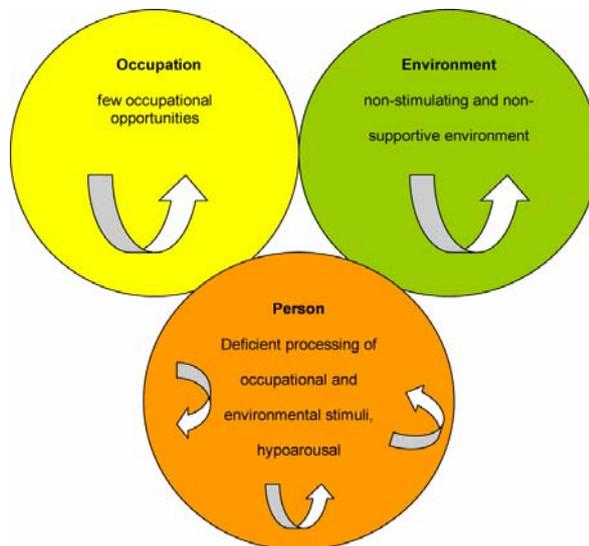


### Part III

#### Being under-occupied

People with schizophrenia seem to be under-occupied in impoverished social and geographical environments. They seem prone to develop negative symptoms, disabilities and inadapive behaviour (Bejerholm & Eklund, 2006b; Bejerholm & Eklund, 2007).

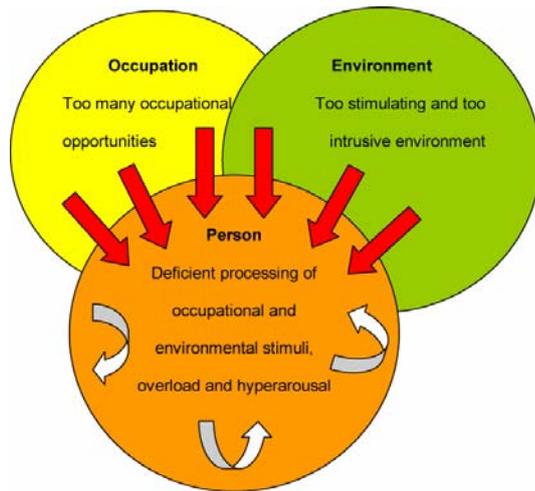
The understanding of being under-occupied is reflected in Item 1. The arrows symbolise the directions of the, in this case, non-transactions between the three occupational performance domains.



Item 1. Being under-occupied

#### Being over-occupied

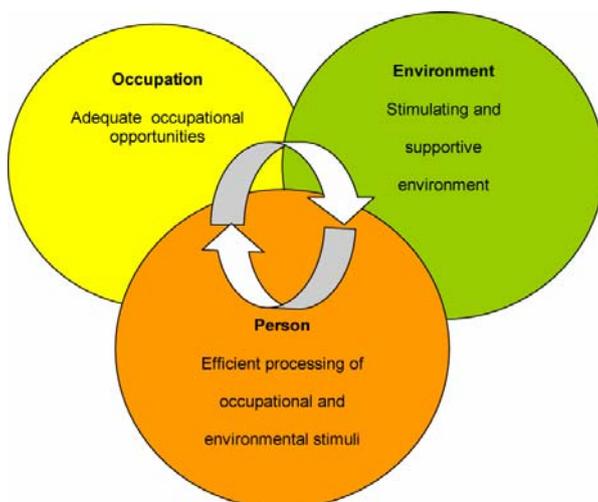
The understanding of being over-occupied, with a too stimulating environment, such as intrusive social relations or too intense treatment, may in turn produce psychotic relapses (Lieberman et al., 1982; Sells, Stayner, & Davidson, 2004), which is reflected in Item 2. Here, the arrows symbolise an imbalance in transactions between the three domains. Thus, an increase or reappearance of symptoms could be an outcome of the imbalance between a person's problem-solving skills and life stressors found in the environment and in the type and organisation of occupations performed.



Item 2. Being over-occupied

### Having occupational balance

Item 3, occupational balance, refers to a good fit between personal, environmental and occupational factors, occupational performance over time. The client's everyday life should be planned in such a way that it fits the personal needs like a well-tailored garment, because helping people to a balanced use of time and an optimal blend of meaningful occupations could support the rebuilding and maintenance of health and well-being in people with schizophrenia.



Item 3. Having Occupational Balance

## Estimation of occupational balance

Mark the item that suits the client's situation, based on the information elicited in Part I. Discuss occupational balance together with the client.

**Item 1. Being under-occupied**

**Item 2. Being over-occupied**

**Item 3. Having occupational balance**

## References

- Backman, C. (2001). Occupational balance: measuring time use and satisfaction across occupational performance areas. In M. Law, C. Baum & W. Dunn (Eds.), *Measuring occupational performance* (pp. 203-213). Thorafare, NJ: Slack Incorporated.
- Backman, C. (2004). Occupational balance: Exploring the relationships among daily occupations and their influence on well-being. *Canadian Journal of Occupational Therapy, 71*(4), 202-209.
- Bejerholm, U. (submitted). Occupational Balance in people with Schizophrenia.
- Bejerholm, U., & Eklund, M. (2004). Time use and occupational performance among persons with schizophrenia. *Occupational Therapy in Mental Health, 20*(1), 27-47.
- Bejerholm, U., & Eklund, M. (2006a). Construct validity of a newly-developed instrument: Profiles of Occupational Engagement in Persons with Schizophrenia, POES. *Nordic Journal of Psychiatry, 60*(3), 200-206.
- Bejerholm, U., & Eklund, M. (2006b). Engagement in occupations among men and women with schizophrenia. *Occupational Therapy International, 13*(2), 100-121.
- Bejerholm, U., & Eklund, M. (2007). Occupational engagement in persons with schizophrenia: Relationships to self-related variables, psychopathology, and quality of life. *American Journal of Occupational Therapy, 61*(1), 21-32.
- Bejerholm, U., Hansson, L., & Eklund, M. (2006). Profiles of occupational engagement in people with schizophrenia, POES: Development of a new instrument based on time-use diaries. *British Journal of Occupational Therapy, 69*(2), 58-68.
- CAOT. (2002). *Enabling occupation: an occupational therapy perspective*. Ottawa: Canadian Association of Occupational Therapy.
- Christiansen, C., & Townsend, E. (Eds.). (2004). *Introduction to occupation. The art and science of living*. NJ: Prentice Hall: Upple Saddle River.
- Csikszentmihalyi, M. (1997). *Finding flow. The psychology of engagement with everyday life*. New York: Basic Books.
- Eklund, M., Leufstadius, C., & Bejerholm, U. (submitted). Time Use among People with Psychiatric Disabilities.
- Hirsch, S. (1976). Interacting social and biological factors determining prognosis in the rehabilitation and management of persons with schizophrenia. In R. Cancro (Ed.), *Annual review of the schizophrenic syndrome (vol 4)*. New York: Brunner/Mazel.
- Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P., & Letts, L. (1996). The person environment occupation model: A transactive approach to occupational performance. *Canadian Journal of Occupational Therapy, 63*(1), 9-23.
- Lawton, M. (1999). Methods and concepts for time-budget research on elders. In W. Pentland, A. Harvey, M. Lawton & M. McColl (Eds.), *Time use research in the social sciences*. New York: Kluwer academic/Plenum publishers.
- Lieberman, R., Neuchterlain, K., & Wallace, C. (1982). Social skills training and the nature of schizophrenia. In J. Corran & P. Monti (Eds.), *Social skills training*. New York: Guilford Press.
- Rebeiro, K., & Cook, J. (1999). Opportunity, not prescription: An exploratory study of the experience of occupational engagement. *Canadian Journal of Occupational Therapy, 66*(4), 176-187.
- Robinson, J. P. (1977). *How Americans use time*. New York: Praeger publishers.
- Sells, D., Stayner, D., & Davidson, L. (2004). Recovering the self in schizophrenia: An integrative review of qualitative studies. *Psychiatric Quarterly, 75*(1), 87-97.

