Time Geographic Method

Promising use in rehabilitation and health promotion

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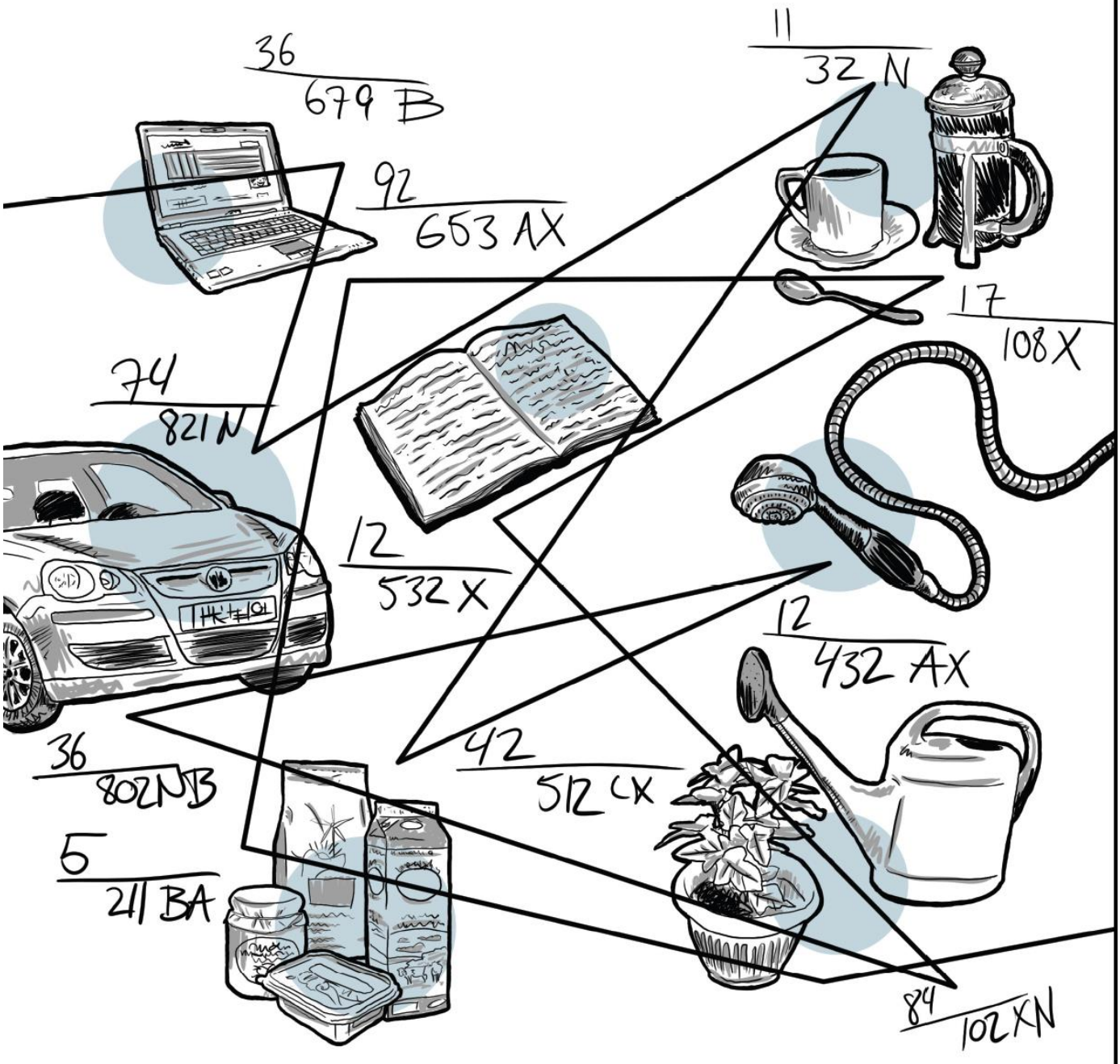

Work in progress

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Introduction

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Time-geography – a short background

The group of Scandinavian Occupational Therapists, authors of this collection of papers to be presented at the World Congress in Chile, has in various ways utilized the time-geographic diary method. I am honored for being asked to write a short introduction and place the time-geographic diary in the broader context of the time-geographic approach.

Time-geography is a cohesive approach for researching how phenomena relate to each other in time and space. The father of time-geography, Torsten Hägerstrand[1], claims in his final book, *The Fabric of Existence*[2], that the approach is an all-ecology valid for researching phenomena of different kinds and at many levels. As geographer, he was eager to underline that phenomena of different kinds co-exist in the landscape on the earth's crust, living and non-living phenomena as well as material and immaterial. One consequence is that he questioned the dominating trend in science towards increased specialization into narrowing fields, and he claimed that a complementing contextual approach is much needed. Time-geography is the result from his meeting this challenge. In the book, he presents the philosophical ground for the approach as well as its basic concepts and special notation system.

Time-geography was presented at in the late 1960's and Hägerstrand got a large research grant for his research group. Several doctoral students were employed and the group laid the ground for testing and developing time-geographic concepts, the notation system and several empirical studies.[3]

One central assumption in time-geography is that time and space (place) cannot be dissolved without losing important information about phenomena. These two dimensions are used by

[1] Torsten Hägerstrand, 1916-2004, was Professor in Human Geography, Lund University, Sweden.
[2] The book was published in 2009 edited by Kajsa Ellegård and Uno Svedin. The title is "Tillvaroväven" (in Swedish), Formas, Stockholm.
[3] Lenntorp, B (1976) Paths in space-time environments. A time-geographic study of movement possibilities of individuals. Meddelanden från Lunds universitets geografiska institution nr 77 ; Öberg, S (1976) Methods of describing physical access to supply points. Meddelanden från Lunds universitets geografiska institution nr 76; Mårtensson, S (1979) On the formation of space-time biographies. Meddelanden från Lunds universitets geografiska institution nr 84; Carlstein, T (1980) Time resources, society and ecology. On the capacity for human interaction in space and time. Preindustrial societies. Meddelanden från Lunds universitets geografiska institution nr 88; Ellegård, K (1983) Människa – Produktion. Tidsbilder av ett produktionssystem. Meddelanden från Göteborgs universitets geografiska institutioner, serie B no 72.

everyone as means for orientation in the real world, and mostly it goes without reflection. Therefore, time and space often are neglected at the same time as they are taken for granted. Time-geography put time and space to the fore which makes it possible to get a more complete picture of processes that phenomena and people are involved in. Time-geographers recognize time as a continuous dimension.

There are several concepts in time-geography which help describing and analyzing relations in time and space for increasing the understanding of processes and phenomena; three of them are individual path, project, and activity. The individual path is a tool for visualizing phenomena appearing in sequence along the continuous time dimension. In Figure 1, individual path is illustrated. The "individual activity path" (Figure 2) is a key concept when we developed the time-geographic diary method. Since the individual activity path does not display the geographical map, a complementing diagram was created to show what places the individual has visited (Figure 3b). The individual activity path, however, show how much time is used by the individual for movements (Travel in Figure 2).

We started developing the time-geographic diary method, in which we developed the individual activity path, in the late 1980's.[4] The aim was a method that is easy to use and easy to understand also by the individual diarist. It takes its point of departure from the diarist's one perception of the activities performed in the course of the day(s). The diarist writes in a booklet in which the researcher has written headlines indicating what to write. The headlines are: What time it is; What I do; Where I am; Who I am together with; My mood; My physical status and Comments. Other headlines can be added depending of the focus and aim of the study. An advantage is that the diarist herself notes what time it is and therefore is not forced into thinking in predefined time-slots (for example 10- or 15-minutes intervals). This helps the diarist to make the diary her own. Hence, the method is flexible relative to the diarist unique everyday life.

[4] Ellegård,K (1993) Olikadant. Aspekter på tidsanvändningens mångfald. Occasional Papers 1993:4. Kulturgeografiska institutionen, Göteborgs universitet.; (1994) Att fånga det förgängliga. Utveckling av en metod för studier av vardagslivets skeenden. Vardagslivets komposition delrapport 2. Occasional Papers 1994:1. Kulturgeografiska institutionen, Göteborgs universitet.; (1999) A time-geographical approach to the study of everyday life of individuals – a challenge of complexity. In: GeoJournal, vol 48, no 3, 1999; (2006) The power of Categorisation in the Study of Every Day Life." Journal of Occupational Science, vol 13 (1); Ellegård, K & Nordell, K (1997) Att byta vanmakt mot egenmakt.Självreflektion och förändringsarbete i rehabiliteringsprocesser. Metodbok. Johansson & Skyttmo, Stockholm.; Nordell, K (2000); (2002) Women's health – a question about consciousness, opportunities and power. (in Swedish) Series B No 101. Department of Human and Economic Geography. Gothenburg University; (2002) Stolseffektivitet eller behandling?: ett förändringsarbete med feminina förtecken i tandläkarens tidrum. *Svensk kulturgeografi och feminism*. Schough, K (ed) Karlstad University Studies 2002:3. Karlstad.

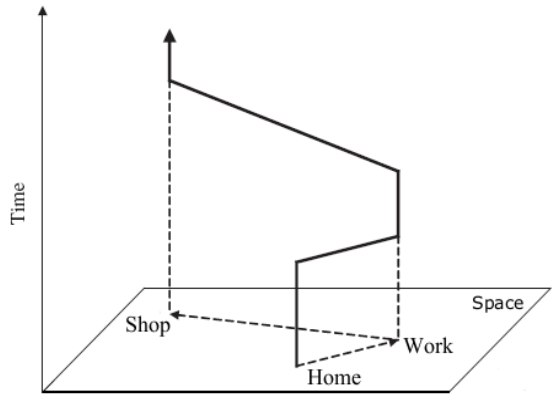

***Figure 1**: A representation of an individual path in a time-space diagram. Time (x-axis) is to be read from the bottom and up, and the map shows places in the geographical space (x- and z-axes). The "individual path" represents the movements of an individual in time (vertical line parallel with the y-axis, i.e. the individual is at the same geographical place but time goes by) and space (the line is slanted in relation to the y-axis and the x- and z-axes of space, i.e. the individual moves from one place to another (which takes time). The movements from home to work to shop appear to be as obvious as the visits at the three places. But no activities are displayed.*

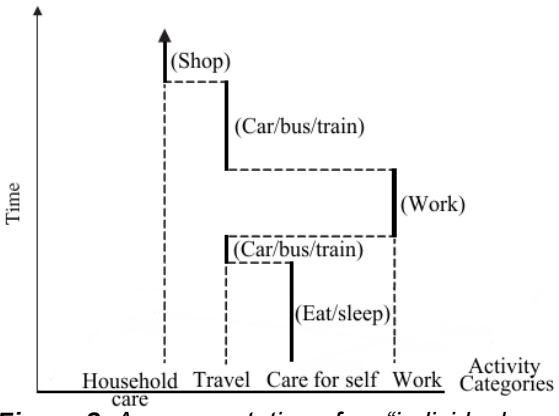

***Figure 2**: A representation of an "individual activity path" in a time-activity diagram. Time (y-axis) is to be read from bottom and up and activity categories are placed along the x-axis. The "individual activity path" is an extension of the "individual path" and is used to represent an individual's performed activities over time. The space dimension is here reduced to explicitly show how long time is used for travel (in the example car/bus/train). The time spent for the activities comes clearly to the fore in this diagram, but the geographical movements are not displayed.*

It is not, however, enough to visualize the activities performed by the diarist, since important information from the diary then is not taken into consideration: place; companionship; mood and bodily status. In Figure 3 an example is shown of how this information can be visualized. If all the information from the diary is visualized in this way, putting one type of information[5] beside the other, it is possible to draw a line at any point in time and see what appears at the same time. From the examples in Figure 3 it is shown that the individual feels stressed at home in the morning (before going to work) and also in the afternoon during the travel to the shop and in the shop. At the workplace she does not note any stress.

In this way the time-geographic diary can be used to give a close description of what the diarist's day has been like, and thereby it also helps to put to the fore what the she was aware of. It shows routines and habits of the individual, i.e. activities that she is not aware of. The visualization of the activities of her geographical movements, companionship and how she feels makes it possible for the diarist to reflect over what everyday life is like and if she does not like what she sees she can formulate goals for what to do instead and start trying to make changes. Changing ones everyday life can be a hard thing, and help might be required.

[5] The information is taken from what the diarist has written under the headlines in the diary.

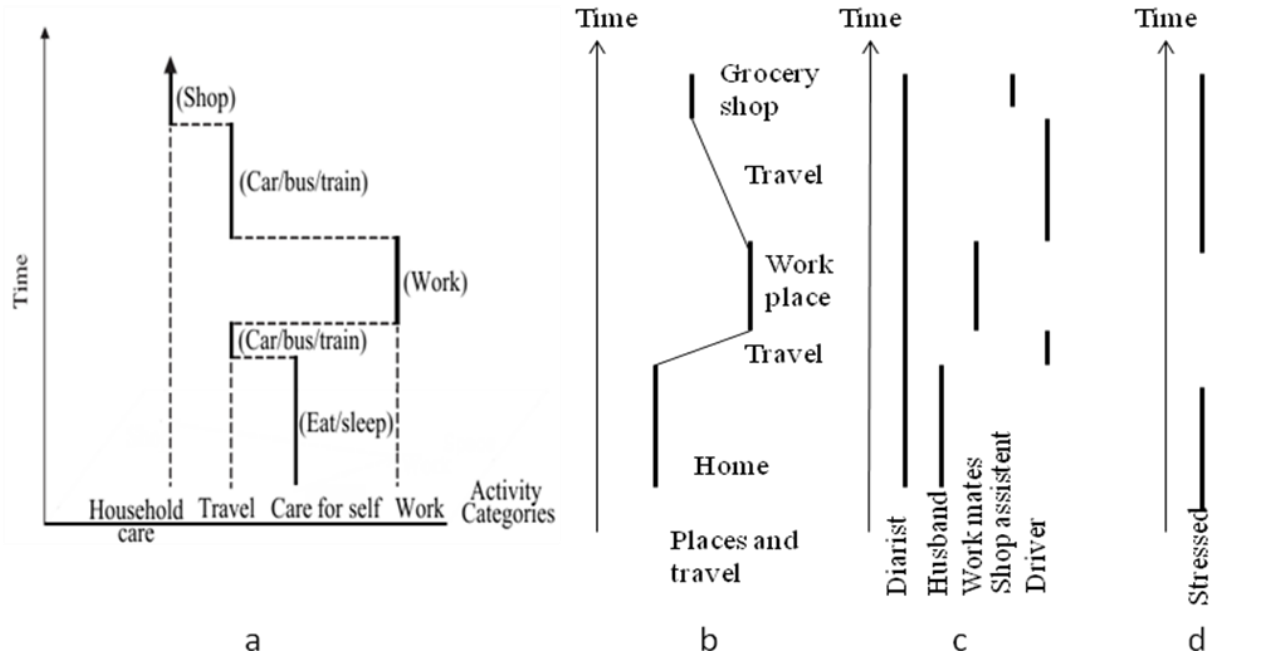

Figure 3*. a). The individual activity path of Figure 2, b) a simplified individual path showing movements between different places and visits to places, c) companionship, note that the diarist is present all the time, d) the diarist's mood during the period visualized.*

The time-geographic individual path (Figure 1) has been criticized for being physicalistic and not taking immaterial phenomena into consideration.[6] However, most immaterial phenomena, like feelings, knowledge, values and experiences, can be *related to* the material phenomena depicted in the time-geographic diagrams, as shown in Figure 3.

To visualize and analyze the diaries it is important to use a categorization scheme that is both specific and general at the same time. It must apply to the most diverging everyday lives. When we developed the time-geographic diary method, the hardest problem to solve was to construct the category scheme. We created a scheme with a hierarchical structure (with five levels of detail) and with seven main categories that, taken together can capture a vast majority of the different activities that people write in their diaries and, hence, constitute the basis for people's "Living their life". To "Live one's life" is the overall goal that everyone strives for. The categorization scheme is developed from diaries covering about 220 diary days. The scheme ended up with about 600 different categories on the five levels. The main activities take the point of departure from the diarist, so she is regarded as "me" or "I". The main categories are:

- "Care for oneself"; sleep, eat, personal hygiene
- "Care for others"; help other's to perform activities or learn
- "Household care"; care for things, home, car, garden, clothes etc

[6] A related critique comes from those who mistake the notation system for equaling the whole time-geographic approach.

- "Reflection/recreation"; talk, read, watch TV, video, radio, draw, play music etc
- "Travel"; move from one place to another
- "Procure & prepare food"; buy food, prepare meals, bake, wash the dishes, waste handling
- "Employed work/School"; perform work tasks, take lessons

This category scheme differs from the ones used by for example Statistics Sweden when they perform time-use surveys. The most important difference is that what is regarded at "Household chores" in the national time-use surveys is divided into three categories in our scheme: "Care for others"; "Household care" and "Procure & prepare food". We chose to give more detailed information about how everyday life is composed since activities from the three categories are interweaved into each other and with others, hence, using just one category for all of them means that the variance is hidden.

Project is another important concept in the time-geographic diary method. A project relates to activities that are planned to be performed in order to achieve a goal set up and strive for by an individual. An *individual project* relates to the individual's own goal, while an *organizational project* is related to a goal set up for an organization. In Figure 4 an interesting intersection between individual and organizational projects is displayed. Both individual and organizational projects can be realized by individuals performing its necessary activities. A household project aiming at living a good life claims for an income in a modern society. To get an income people must work. Conflicts might arise between the employee and the employer about how to perform the work activity and what the income should be, but still the employee goes on performing her work tasks because she needs the income.

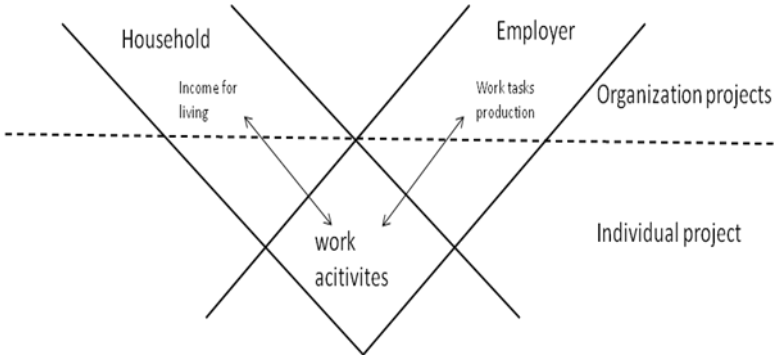

Figure 4. At individual level, the household and employer organizational projects coincide as the individual performs work activities. Colliding interests can be found here.

An *activity* is what people do in their strivings to achieve the goals of their projects. Activities are written by the diarist in her diary. Activities might be performed without reflection, but projects are always reflected to some extent, at least when the goals are set up. If the activities

in the diary from an individual are visualized by the individual activity path, like in Figures 2 and 3, it is possible for the diarist to recognize activities in her everyday life that she did not think of, and since they are put to the fore in the visualization, she can start reflect over them.

Activities, hence, build up projects, and it is possible to identify projects in the visualizations of diaries taking the individual activity path as point of departure. To do this kind of analysis, the diarists should be interviewed. Otherwise the question "Why did you do this activity?" will not find an elaborated answer. Starting with the diarist writing a diary, visualizing it by using the computer software available[7], and then taking the visualization as a point of departure for an interview, it is easy to start talking about how the activities performed during the illustrated days (like in figure 3) relate to each other and to the projects the individual is involved in (individual as well as organizational projects). In the interviews colliding and conflicting goals at individual and organizational level can be identified, and this will help the diarist to sort out what to give priority to.

Colliding projects links to another set of concepts useful for analyzing the diaries: the *constraints*. Individuals' strivings to achieve goals for any project meet constraints in this endeavor.[8] Time-geography defines three types of constraints: *authority constraints* (rules and laws to be followed, set up by an authority), *capability constraints* (the individual's biological, economical, material, cognitive and mental resources and skills) and *coupling constraints* (the need for being together with someone (e.g., a child) or something (e.g., food) during a time at a place).[9] The constraints are important when analyzing the diaries. The authority constraints define for example the time frames for being at the work place and the opening hours of service. This is decisive for how the rest of one's daily life activities can be arranged, for example commitments made with friends to have dinner together or picking up children at daycare(coupling constraints). The capability constraints limit the individual to do things out of her economic, psychological, material and social reach.

The visualization of the diary by using the "individual activity path" is a way to describe the sequence of activities performed by the individual along a continuous time dimension. The sequence of activities performed and visualized is called the "*everyday activity context*". It is a concept aiming at talking about what has been performed. The performed activity sequence can

[7] Ellegård, K & Nordell, K (1997) Vardagen. In the book Att byta vanmakt mot egenmakt, Johansson & Skyttmo Förlag. Studentlitteratur; Ellegård, K & Nordell, K (2008), EveryDay Life 2008, computer software refined and further developed version of Vardagen.
[8] Hägerstrand, T. (1970) What about people in regional science, in *Regional Science Association Papers*, Vol. 14, p 7-21.
[9] Mårtensson, S. (1979) *On the formation of biographies in space-time environments.* Diss. Lund studies in Geography B, No 47. University of Lund, Dept of Geography.

never be changed – however, it can be re-evaluated. The everyday activity context includes, as indicated above, activities performed in order to achieve the goals of different projects. All activities appearing in the everyday activity context that relate to one and the same project is called a *project context*. Using these two concepts, the *everyday activity context* and the *project context*, will help getting a better understanding of how the *organizational projects* an individual is engaged in relate in a positive or a negative way to the *individual projects* that she has formulated for herself. These are time-geographical conceptual tools helpful for reflecting over one's own everyday life.

The time-geographic diary method in the papers

The papers in this collection apply the time-geographic diary method in different ways, in different contexts and at different levels of aggregation. Karen la Cour et al study everyday life of individuals with advanced cancer. My reflection after reading their paper is that the organizational project of the health care organization should be aware of the daily rhythms of their patients and put their needs to the fore. Gunilla Liedberg et al study women with fibromyalgia and show that living with fibromyalgia strongly influence everyday life, not least their need for sleep, rest and that activities take more time than for others. From this study it is obvious that when working, the women with fibromyalgia need a workplace with an organizational project that is sensitive and can be adjusted to the needs of these women. The organizational project must be flexible to fit the women's individual projects to earn an income. Klara Jakobsen studies time-use of women with rheumatism. She shows the power of authority constraints (inflexible rules at the work place) of the organizational project limiting the opportunities for the women to perform their individual projects work for an income. All three make use of the diary method in order to find out how everyday life is influenced by illness. They also conclude that most activities takes more time to perform for persons that are ill or disabled, and that activities related to care for oneself must be given priority and, hence, take a lot of time. To these individuals activities from the main activity category "Care for oneself" can be regarded as a project in itself, and that other engagements and individual projects get lower priority.

Ulla Kroksmark presents how the method has been utilized to find out how children and adolescents with and without visual impairment live their daily lives and about the main differences are between them with visual impairment and other children and adolescents. Her conclusion is that the method reveals differences between the groups and that the method helped to discover how the individuals in the groups spent their days. Eva Magnus paper analyses the daily

life of students with disabilities, and even if they are not “ill” in the same sense as the individuals in the before mentioned studies, the conclusion is similar: activities take more time for them to perform. They engage in the individual project “to study for an exam at the University”, and this project takes a lot of energy. The University’s organizational project “to educate students” is not enough adjusted to how students with special needs live their everyday lives. This makes it extra difficult for them to achieve the goal of their individual project “to get an exam”.

Hans Jørgen Bendixen utilizes the time-geographic diary method in another way. His study is about how work is organized in a hospital and what tasks the employees are engaged in. The employees use their time-geographic diaries to write down what they do at work and what kind of work task the activities they perform are related to or part of. The result from the time-geographic diaries and interviews points at a set of themes to be investigated more in depth, and indicates also improvements that can be made in the organizational project of the ward.

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Conducts of daily life with advanced cancer - rhythms of activity linked to satisfaction and meaningful days

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This paper is a short rewriting of a previously published study

- la Cour, K., Nordell, K. & Josephsson, S. Everyday life of people with advanced cancer: Activity, time, location & experience *Occupational Therapy Journal of Research*, 29 (4): 154-162.

Abstract

This paper is based on a study exploring the daily lives and activities of people with advanced cancer.
Forty five adult participants were sampled from an oncology out-patient unit. Data were generated using semi-structured diaries and qualitative interviews according to the Time Geographical Method. The data were analyzed using a software programme, describing time use combined with a constant comparative method. The results show that the participants' spend most of their time at home, dominated by self-care and leisure activities, while social engagement was limited. The participants' created daily rhythms of routine and novel activities, identified to influence their satisfaction in daily life. The results suggest a need for developing health care services to support people with severe illness in creating personal rhythms.

Introduction and study aim

Increasing numbers of people with advanced cancer live at home and wish to continue doing so for as long as possible (Raunkiær, 2007; Gatrell et al., 2003). Advanced cancer affects the individual's capacity to engage in everyday activities. For example, bodily deterioration often results in a range of losses from basic functional skills to the ability to maintain social roles and work (Cooper, 2007; Grønvold, Pedersen, Jensen et al., 2006).

Although society is aware of the problems advanced cancer can cause, little is known about how it influences everyday life. Moreover, what activities people with advanced cancer engage in during the day and how these are experienced. If healthcare services are to support people with

advanced cancer, in living at home for as long as possible, the needs and wishes of these people, in regard to what they do in their daily lives, must be assessed.

Raunkiær (2007) explored how everyday life was experienced and managed by people dying of cancer, by their relatives and by professional home care nurses. The study identified routines to be highly valued, as they provide a sense of security in the lives of people with advanced cancer. Furthermore the study pointed out that experiences of living at home, when facing imminent death, cannot be separated from the conditions under which daily life is lived, such as its physical and social context. Consequently, the daily activities of people with advanced cancer should be explored in the context in which they take place, including, where and with whom they are experienced.

Only a few studies have addressed the time use of people with cancer. A study by Rasmussen & Elverdam (2007) highlights how cancer disrupts time and that time, in the light of impending death, become an important consideration in the participants' prioritising of what they do and with whom they engage. These results suggest time to be a useful parameter for exploring how people with advanced cancer organize their daily lives.

With the findings from the above studies in mind, this study focus on what people with advanced cancer do, with whom they do it, the ways in which they organize their time and activities, and how they experience their activities in everyday life.

The aim of this study is, therefore, to describe and explore the everyday activities of people with advanced cancer in relation to time, location, social engagement and experience.

Methods

Sample

Sixty-four patients were identified as eligible participants for the study and invited to participate. A total 45 of the patients agreed to participate in the study. Nineteen invited participants did not participate because eight of them died, 10 of them reported that they did not have the energy to participate and one did not consider herself relevant for the study. The 45 participants with advanced cancer for which cure were no longer expected were consecutively sampled from an oncology out-patient unit and comprised male and female patients between 39 and 80 years old. Criteria for inclusion were that the group should represent the three most common cancer diagnoses at the hospital where the study took place (lung cancer, breast cancer and colon cancer) with attention paid to variation in gender and age. A contact nurse invited participants who met the sample criteria to participate and provided verbal and written information about the study.

A purposive (Luborsky & Rubinstein, 1995) sub-sample of seven participants was recruited among the 45 for in-depth qualitative interviews. Inclusion criteria for the sub-sample were: a) variation in the activities that the participants engaged in on a daily basis, b) variation in their social situation such as living alone or co-habiting, and c) variation in age. The seven participants sampled for the interviews were five females and two males between 39 and 67 years of age. Two participants had breast cancer, three had lung cancer and two had colon cancer.

Data generation

Data was generated by use of The Time Geographical Method (TGM) which combines the use of diaries and qualitative interviews to explore how time is spent in various activities and contexts during the day (Ellegård and Nordell, 1997). Researchers (Erlandsson & Eklund, 2006; Bendixen, et al., 2006; Liedberg, Hesselstrand & Henriksson, 2004) have recommended time-use diaries to collect data about how people occupy their time in daily life. They emphasize that time-use diaries are useful for studies of peoples' objective and subjective life contexts as the method includes both registering and interviewing respondents about activity in relation to time, location, social engagement and experience. Specifically the TGM requires the participants to keep a semi-structured dairy of the activities they undertake, when they undertake the activities, with whom, where and how they are doing. The latter relates experiences of physical discomfort and state of mind during activities.

The method was chosen as it was expected to be useful in gaining insight into the daily activities of people with advanced cancer while subjecting the participants in the study to minimal intrusion in their everyday life. Participants in the study were provided with a TGM diary and written instruction about how to use it. In addition the participants were contacted by telephone to follow up on any questions they might have concerning how to complete the diary. The participants had the diaries for periods varying from two weeks to two months and they were asked to complete their entries for three individual days of their choice.

Qualitative interviews were conducted, with the sub-sample of seven participants, after the participants had written the TGM diary. These interviews took their point of departure in an initial reading of the diaries, so that topics the participants had written about in their diaries formed the basis for questions raised in the interview. For example, one participant had written about her participation in a 'private club' and so she was asked to elaborate on this activity during the interview. The interviews were carried out in the participants' homes and focused on their

experiences of engagement in activities in daily life. Interviews were audio-taped and transcribed verbatim.

Analysis

Initially data deriving from the diaries were subject to a specific software program developed for the TGM (Ellegård & Nordell, 1997), which organizes the data and uses graphs to illustrate time use patterns showing which activities people undertake (activity context), where (geographical context), with whom (social context) and how they are doing (experiential context). Also included are frequency, number of social contacts and duration of registered activities.

Following all data from diaries and interviews were analysed by a constant comparative method (Strauss & Corbin, 1998). First, the empirical data from the TGM diaries of individual participants, their time-use graphs and interviews was read repeatedly to achieve a thorough understanding of their content. Next the data were assigned codes based on a line by line reading. Initially the participant's own words were retained but later codes created by the researcher were used. By identifying and constantly comparing the relationships and patterns of difference and similarity between the different codes, it was possible to build categories of those with familiar features. For example, the analysis showed that all participants were in different ways striving to establish rhythms consisting of routines and variation which led to the category '*Aspiring towards familiar days through rhythms of routine and novel activity'*.

Finally the central categories identified were conceptualized with their characteristics and relative disposition to one another.

Results

Overview of findings

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1. Days with cancer dominated by self-care and leisure at home

2. Aspiring towards familiar days through rhythms of routine and novel activity

3. Consequences of cancer influence rhythm and satisfaction in daily life

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Days with cancer dominated by self-care and leisure

The results from this study showed that the participants spent most of their time at home. The participants' daily activities were dominated by self-care and leisure and social engagement was limited to their immediate family and close friends. The symptoms of cancer influenced the

participants' occupational patterns with respect to night and day to an extent that also affected their activity in time, location and social context.

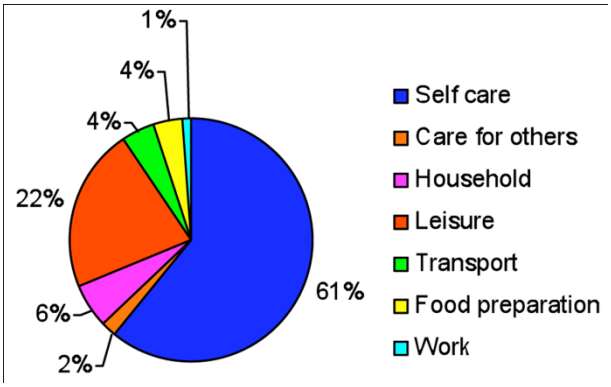


Figure 1. Participants' time-use in daily occupations

Common needs among the participants were identified in the analysis. For example the majority of participants expressed a need to have something to be engaged in on a daily basis and opportunity to get away from home. With regard to social needs study participants expressed desires to increase time with family and be with other people who had similar cancer conditions. Further, in regard to being with other people with advanced cancer, apprehension was identified in some participants who were concerned with excessive focus on illness. In addition the analysis identified the internet as a stimulating activity that was used for creative as well as social purposes. For example, participants found ideas for activities such as painting, attending auctions and keeping contact with family via the internet.

Aspiring towards familiar days through rhythms of routine and novel activity

The study showed that, when living with advanced cancer, participants strove to establish routines and continuity as well as what were identified as rhythms. Rhythm in daily activities was identified to be conducted as individually tailored compositions of routine and novel activities. Activities both of routine and of change had their own distinct value. Routines supported ordinary days providing a sense of familiarity associated with continuation and structure. Novel activities were valued for stimulating different ways of thinking and by including qualities of challenge, unpredictability and transformative processes of development. Several participants shared how much they valued new activities they had started up to fill the day such as building model trains or nursing plants and knitting. To the participants it was not just about novel activity but rather the stimulating challenge and joy they found through their engagement.

The findings of this study thereby identified ways in which activities may provide a means for creating rhythms in everyday life by interspersing familiar routines with novel activities.

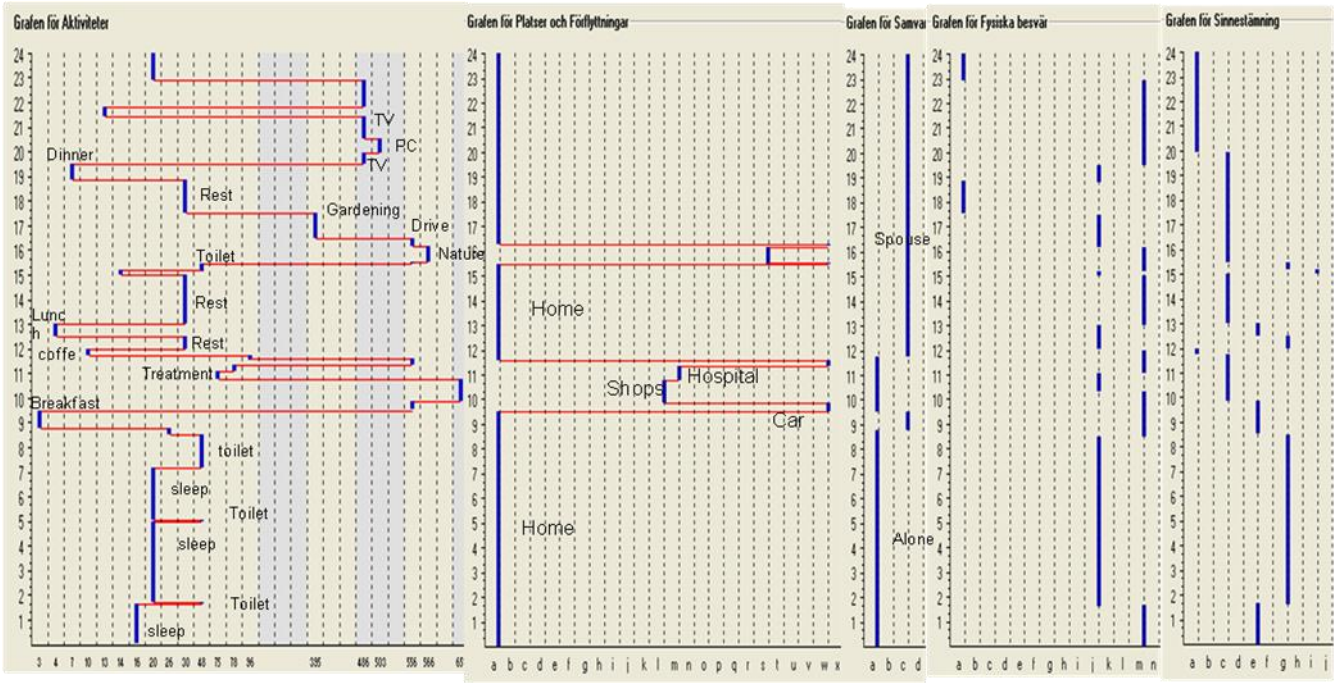
Consequences of cancer influence rhythm and satisfaction in daily life

The consequences of advanced cancer were identified to influence rhythms of activity. Such influence could be experienced as positive or disruptive in regard to the individual's rhythms and could, in turn, affect their experience of satisfaction in daily life. As an example of a positive influence, several participants explained that illness had given them more time to be with their family and generated a different focus in life that was experienced as enriching.

Other influences were experienced as disruptive. For example, one of the women expressed frustration with a new medicine that her doctor had prescribed, as it interfered with her daily routine and thus affecting her entire rhythm. Several participants drew attention to other ways in which interference with routines was experienced as affecting a wider context of rhythm.

Figure 2 graphically illustrates a day with all contexts of time, activity, location, social interaction and experience for a 57-year-old man with colon cancer.

The example represents a typical day for most of the participants.



Time is represented on the vertical axis. The horizontal axis is coded by numbers to identify specificities within each context.
The five graphs shows;
1. The activity context i.e. the different activities he is performing during the day,
2. The geographical context i.e. the places he visits and movements between them
3. The social context, i.e. the social interaction he engages in.
4. His physical discomfort/comfort and
5. His state of mind.

Figure 2. A 57 year old man with colon cancer.

The graphs together depict the daily activity pattern and how it may be influenced when living with advanced cancer. For example, the graphs of activity, location and physical discomfort reveals how colon cancer can result in extended periods with stomach pain, demanding repeated toilet visits and rests during the day.

Discussion

A core finding in the study was the participants thriving for creating rhythms of activity. From an occupational perspective, the concept of rhythm is primarily referred to in regard to two aspects. First it was brought forward by Meyer (1922) who argued that "the whole of human organisations has its shape in a kind of rhythm" (p 641) and that there are many kinds of rhythm, in particular the balancing of work and play and rest and sleep which humans must be able to balance. Furthermore rhythm is referred to connection with circadian rhythms pertaining to periods of higher and lower levels of attention and arousal activity such as rest/activity cycles (Christiansen, 1996; Leufstadius, 2008). Fiese (2007) briefly addresses the notion of rhythm as it relates to the coordinated routines of a given household. However, neither Meyer (1922), Leufstadius (2008) nor Fiese (2007) addresses the experiential aspects of rhythm in further depth. In extension, the present study provides insight to how activity rhythms are experienced and may be composed in daily life which we have not found addressed in previous studies.

As a whole, rhythm might be seen as a form of composing meaning in the individual's daily life that is shaped in accordance with their social climate and the context of time and place. This relates to Holzkamp (1995), who proposes that people live life in dynamic relations between what he refers to as the 'cyclic conduct of life' and the 'actual life'. He defines the 'cyclic conduct of life' in line with routine activity, which is described as reproducing and organizing activities that help to maintain everyday life in familiar ways. Holzkamp (1995) further suggests that the 'cyclic conduct of life' support the individual by providing relief from constant awareness of how to approach everyday life. This corresponds to the values of familiarity and ordinariness that the participants ascribed to routine activities. The other dimension that Holzkamp (1995) describes as the 'actual life' is associated with experiences of happiness, flow and meaning. This relates to the notion of novel activity, identified as an aspect of rhythm, which was associated with variation from the routines and with experiences of particular value. Reflecting the ideas of Holzkamp (1995), the notion of rhythm can be understood as a process under constant construction, engaged in by the individual as a way of creating a meaningful whole in everyday life. However, whereas Holzcamp (1995) seems to suggest that meaning in particular is experienced in activities defined

as the ‘actual life’ (parallel to novel activities), the results of this study suggest that meaning is experienced in the combination of routine and novel activities.

Although it is well recognized that people with cancer are prone to social loss accompanied by distressing loneliness (Kissane et al., 2004; Rokach et al., 2007), the amount of time, that the participants spend in solitude and their experiences of being alone was remarkable and raises questions as to how experiences of loneliness can be alleviated. In that regard, the use of internet was identified as one alternative form of sociality that several participants benefited from. Since the social potential of the internet for people with cancer is rarely addressed in research, this seems a relevant area to pursue in future research.

Taken together, the results highlight that participants with advanced cancer strive to create an ordinary day with individual rhythms and show how that can be established by means of engaging in activities of everyday life.

Methodological consideration

The TGM requires a combination of methods, which can be seen to reinforce the trustworthiness of the results. Analysis of data from diaries and from interviews provided mutually complementary insights into daily activities of people with advanced cancer. The interviews that were conducted as complimentary to the diaries served to fill out aspects of everyday life that the participants had identified in the diaries.

It should be noted that the participants experienced the diaries as an opportunity to contribute their knowledge and experience of life with advanced cancer. Several participants saw the diaries as an opportunity to gain a better understanding of their activity rhythms and of their individual strategies for managing everyday life with a terminal illness. It should, therefore, be taken into account that using methods such as diaries can stimulate participants to reflect and make changes to their situation.

Implications

The construction of rhythms in daily life was identified as being significant for the participants’ sense of satisfaction. This underlines the necessity for health care services for people with advanced cancer to pay attention to the activity rhythms of their patients/clients to ensure that interventions provided are supportive of rhythms of activity that facilitate satisfaction in daily living. Furthermore, the findings on rhythms included both subjective and objective aspects of activities. Such knowledge may be used in clinical practice by supporting rhythms based on attention to 1) the structural aspects of rhythm (such as temporality, location and social context) as

well as 2) the experiential aspects such as personal predilections. Finally, the findings relating to rhythm may also have implications for developing knowledge about human occupation by suggesting that rhythms of activity are composed of routines as well as novel activities characterized by distinct values in dynamic interplay.

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Time Use and Activity Patterns in Women with Long-term Pain

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This is the abstract from the previously published study:

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- htpp://informahealthcare.com/sjot

Abstract

Earlier studies of people with fibromyalgia have shown that pain, tiredness, and sleep disruption seriously affect their daily performance and their ability to maintain life roles. A time-geographic diary method was used to study activities and time use in the daily lives of women with long-term pain. The results of the diaries were also used to evaluate activity changes over time. Sixteen women wrote diaries over seven days, and after three months for another four days. The diaries were analysed in a computer program. After considering the results of the first diary, the women formulated goals to be met in the following three months. The results showed that working women spent significantly less time on 'Care for others', 'Care for oneself', 'Rest', and 'Procure and prepare food' compared with non-working women. Further, working women used time in a manner similar to that of the Swedish female population. The diary method gave a clear picture of the women's daily lives, and the advantage of the method is that activity-related time is in focus. Visualised in graphs and tables, it will serve as an educational tool in rehabilitation and can be used as a framework for discussing adjustment and coping strategies.

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Working life and time-use for women with rheumatism

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Abstract

Full employment has been one of the Norwegian government's most important targets during the last ten years. To achieve this goal, even for the elderly and other persons with reduced function, legislation has been amended and other steps have been taken in an effort to reduce barriers to employment. This study describes the experiences of eleven working women with reduced function due to rheumatism. By writing diaries for one week, they were able to register how their time for work, rest and leisure was spread during the week. Analysis of their written diaries in addition to focus group discussions clarified why the time needed for self care was so important for this group of employees to manage their working-days. It exemplified how inflexible rules and the situation at the work site make it difficult to stay employed, and how barriers for employment are not only caused by individual impairments, or a bad match between personal capacity and work requirements, but also by legislation and economic incentives.

Introduction

The national statistics (Statistics Norway 2008) describe how 24 per cent of the Norwegian population older than 16 years, with a disease, illness or a disability, has a chronic musculoskeletal disease. A chronic illness in this situation means a health state that involves the total human environment and something that not will be cured by simple surgery or a short medical therapy (Miller 2000). Employees with chronic illnesses therefore usually have to adapt their bodily symptoms to their living situation in order to get the best out of their daily life. Since the opportunity to stay employed for women with a chronic illness depend on how they perceive the total strain in their daily life (Lilleaas 2003; Jakobsen 2001, 2004; Magnus 2001), it is essential to get an overview of how they spend their time both at home and at work.

Research describe how today's working life is not for everyone (Lillefjell, Jakobsen & Krokstad 2010; Van Duijn 2004)), since it appears to be preoccupied with profit, effectiveness and flexibility (Torp 2005). Persons with reduced function might therefore have difficulty working quickly enough and might then be easily pushed out of working life as being perceived as economic unproductive employees. Factors like low education, low status at work, few

possibilities for influencing the management, and a negative health experience are all factors that might exclude persons from work and place them on a sickness benefit or disability pension (Krokstad, Johnsen & Westin 2002; Noon & Blyton 2007). In order to stem the rising cost of increasing disablement benefits and the rate of sick leave the Norwegian government has introduced several parallel actions from the beginning of 1990 (NOU 2000:27; White paper No19, 2003-2004). The discussion in Norway of how to limit the cost to the nature of pensions is very much in line with similar discussions in the EU-countries (Oorschot & Hvinden, 2001).

During the last thirty years there has been an increasing percentage of women employed in Norway (Statistics Norway 2008). Their economic security is then strengthening, and a job might therefore have a positive influence on women's social and economic independence. To be employed also influences your identity as an active participating person who is creating something important for the society (Jakobsen 2001; White Paper No.9. 2006-2007) and a place you are able to develop yourself by training new skills or learning the latest technology. But women's decision to work might not only reflect a positive choice, most families today need two incomes for an acceptable standard of living, hence economic necessity becomes a fact

Occupational therapists have a special interest of balance between the occupations of everyday life (Law 2002). For this group of employees it will be necessary to distribute their energy between work time and leisure time. In this study the time geographic method was chosen to show how working women with rheumatism used their time during a work-week and then to be able to discuss in a group with like-minded people how their time use influenced their everyday life.

Material and Method

This report describes some findings from a broader published study (Jakobsen 2009), a collaboration between Sør-Trøndelag University College and the Norwegian Rheumatism Association.

Sample

To obtain knowledge of how women with rheumatism experienced their daily life as employees, informants were identified and contacted through the local rheumatism association. The inclusion criteria were female employees in part time or full time work.

Women who were interested to hear more about the study received written information about the project. Then they who decided to participate agreed to give their name and address to the project leader, who sent them a consent formula by mail, asking for their personal data, and giving them a diary with instructions. To protect participants' anonymity their personal information was analysed and repeated in a neutral form. All personal data was then erased in accordance with the agreement with the Norwegian Social Science Data Service (NSD).

The selection consisted of working women with rheumatism, age from 43 to 60 years. Four of the women had their teenage children living at home, and one lived alone with her young boy. Most of the informants had education from college and one had her own private firm. Some lived in rural areas, others in towns, and all were members of the Norwegian Rheumatism Association. Most had working life experience of 15-20 years, and about half of the women had an 80 per cent position or more. When asking leaders of a rheumatism association for informants, this might easily result in persons with an extraordinary capacity or personal skills. The participants therefore represent a strategic sample, not necessarily representative for a larger group of disabled women, but based on their education and experience, these workers represent a diversity of competence.

Procedures and analysis

This study combined a time geographical method (Ellegård & Nordell 1997) and a group interview. By assuming that few of us know in detail how we spend our time during twenty four hours, informants were asked to write their diary for one week, and 13 written diaries were returned. The diaries were written with differing degree of accuracy according to details, but the notes gave a clear picture of time used on several activities, transport between the activities, and with whom they spent their time. The participants were also asked to write down their comments on situations they described during the week. These comments described how the US invasion in Iraq as well as a sudden change in weather was influencing their experienced health.

The notes from the diaries were coded in the time geographic data program (Ellegård & Nordell 1997) which made it possible to summarize their time use and show the results both in frequency tables and graphs. By using this program for analyzing the data from the diaries, it was clear that these women spent much time in paid employment and self care during the week they wrote the diary. In order to create a situation where women, who not are used to exposing their everyday life, can express and affirm their experiences, a focus group interview is described in the literature as a suitable way to listen to people and learn about them (Madriz 2000; Morgan 1998, Kitzinger 1994). To create a situation with the intention of giving the women a chance to share

their experience with other women in the same situation, 9 of the 11 women therefore attend a focus interview in groups of 5 to 6 persons.

Both group interviews were audio taped and transcribed, generating 23 pages of transcripts. Emergent codes were recorded by hand on the manuscript, and then transferred to separate data files by category with corresponding quotes of the thematic unit, and as the analysis evolved, quotes were moved between the data files as the analysis evolved. The analysing process was iterative and allowed for no overlapping categories to emerge. A corresponding process with theory from time geographic literature also went on (Nordell 2002; Hägerstrand 1991; Ellegård 2001). In this process field log and notes, and a reflexive journal were also used as additional secondary data (Thagaard 2002). By noting which items the members spent time on discussing, it was clear that some factors seemed to be more urgent for their everyday life as employees than others.

The centre of attention for a time geographic approach is to understand people's action in an everyday life in a physical and social context (Hägerstrand 1991). The things people do during a period take place in time and space. However when doing things, people experience restrictions. In a time geographic perspective three types of limits are defined; capacity constraints, coupling constraints and authority restrictions. Capacity restrictions limits the person's everyday activity due to bodily reduced function, but also when important factors like for example economy and transport not is present. Coupling restrictions might limit the women from a fellowship with other people, while authority restrictions describe how both formal and informal laws and rules direct what is permitted or possible to do in their everyday life. To achieve relevant data of how people with a chronically disease, like rheumatism, experienced and orchestrated their everyday life as employees, a study design with a geographic approach was therefore chosen when analysing the data.

Results

By analysing the data of how this group of women spent time for several activities during the week (Diagram 1), it was clear that their dominating activities were self care and employment. How several restrictions influenced their chance to choose their daily activities (Jakobsen 2009) were therefore examples of themes that were discussed in the focus groups.

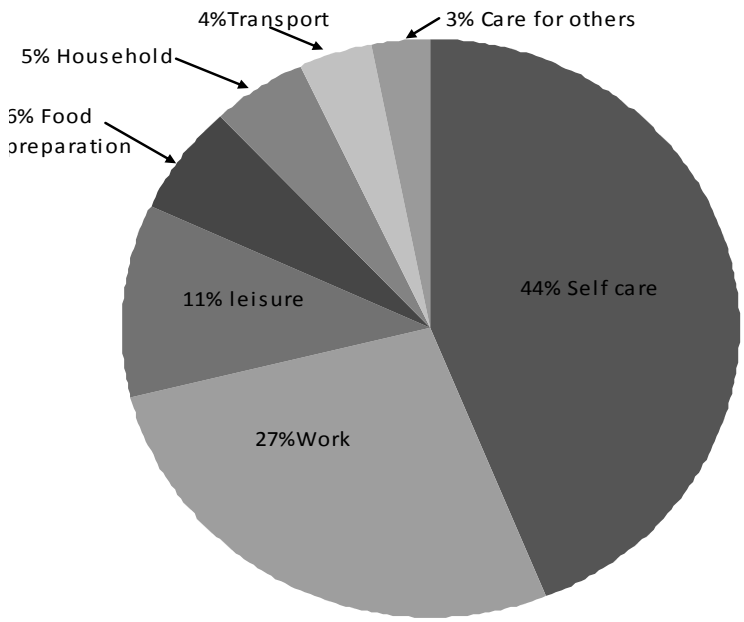

Diagram 1

All of the women described their work as important for their self esteem, and most of them considered the job they did as important and meaningful, even if it sometimes was strenuous. Their rheumatism influenced them differently as to their individual capacity, but to remain in paid employment with a chronic disease like rheumatism might mean that their bodily restrictions affected their individual work capacity. To be in a life situation that allowed the necessary time to recover, was therefore discussed by the informants as one of the most important issues to uphold employment. Having small children who needed their care and attention might hinder their possibilities for necessary rest after work.

> *More time to rest and restitution, - in order to manage what the job situation demands - often might mean less time for leisure activities or be able to participate in other meaningful activities with friends, - like go to cinema, a concert or even to invite to a good meal in one's home or in a restaurant.*

The informants also discussed how issues like the climate and weather might affect on their capacity for work.

> *I recognise the weather on my body. It is the change in the weather condition I feel, but having rheumatism I have experienced we react different on different weather situation; some of us get a bad bodily reaction from humid weather, while others react negatively when it suddenly gets warmer or colder. It is the swift change in the weather that has the worst effects – it feels like the onset of a flu.*

In the diaries some of the women also commented on how the world situation was pretty scary at the time, and how that situation had a clear negative influence on their bodily capacity; *Bush goes into Iraq. The war has started. It makes me sad to se all this misery on the screen.* How the living conditions and world situation influenced their health was also discussed in the focus groups; *such negative atmosphere as a war effects my bodily feelings, which easily influence my bodily health situation in a negative way.*

Some restrictions limited the women from a fellowship with others, and to avoid this both at work and home, tools, materials and persons have to be co-ordinated or combined. To be able to continue an everyday life as an employee with a chronic disease, some equipment was more important than others.

> *Today I was locked into my own garage. The automatic garage door opener failed. Therefore I was not able to get to work.*
>
> *I am dependent on my own car starting every morning when I need to go to work. A parking place near the entrance of the workplace is also necessary, because if I have to walk a longer distance from my car when the weather is bad and blowing, I easily get cold and stiff all over my body. I am then not able to do my work. Therefore it is also impossible to stay and wait for a bus in bad weather. Everyday activities like going to physiotherapy, buying my medicine or go shopping is difficult. A car is important for many, but for those with rheumatism a car is even more important, because without a car you easily get isolated, it then will be the weather that decides whether you get can participate in the society or not.*

Also formal and informal laws and rules directed what was permitted or possible to do as employees with a chronic disease like rheumatism. These restrictions might also affect how these persons are able to participate in society. For these women rules, legislation and economic incentives seemed to be of great importance for their work participation, and how flexible organisational solutions were made possible at the workplace were considered as essential. They expressed that how they were treated as colleagues by workmates and employed by leaders were therefore crucial. They were afraid of being a burden for their colleagues or giving a bad reputation to the firm they were working for. Therefore they worked as hard as possible during work time. But as registered time use shows (Diagram 1), they verified in the focus groups that they had to spend much time for rest and restitution after work in order to manage their position as an employee.

As a spontaneous reaction on the time spent on self care and employment, in both the focus groups, an intense discussion of a more flexible pension system occurred. Since the rules usually claimed a half position off to get a disablement benefit, this inflexible system did not allow them to reduce their hours little by little in accordance to their gradually reducing capacity. Choose to be on an 80 % position then claimed they loose income. To live with a partner with a god income or living alone with a responsibility for children then created different opportunities for taking care of their health by reducing working time. In these situations, the motivation for working was often driven by economic reasons if your economy did not allow you to earn less money.

> *It feels little flexible when one only is able to get a disable pension when one is disabled 50 % or more. Having rheumatism might mean one gradually get less function. It is therefore better to have a possibility to a gradual reduction, which gives a possibility for shorter days or one day free every week, something that might give an opportunity for maintenance of one's original job*

As indicated, the informant claimed that if one has to reduce one's position to 50 %, due to redistribution of the job tasks, it was a chance to lose your possibility to stay in your original job. They also gave examples of how it could be necessary to employ another person and a solution was to share the working tasks between them.

These women were well informed of their rights according to the law, which describes that a worker by preference shall be given an opportunity to continue in their original work. However, they expressed it as difficult to press the employer to obtain these rights, because they then saw themselves as a big burden for the working environment.

All these experiences showed that even if these women with rheumatism understood it would have been best for their health to reduce their position in order to stay longer in working life, it was clear how their restrictions according to employment not only were caused by individual impairments, or a bad match between personal capacity and work requirements, but also by the effect of legislation and economic incentives.

Discussion

Time geographic registration made it possible to illustrate how these women employers with rheumatism actually spend their time, what they did. Even if the diaries do not give an overview of all the activities these women did during the week, it is reasonable to believe they registered the everyday activities of personal importance. The discussions within the groups also gave an

opportunity to raise the participant's consciousness of how, and for some examples why, they spend their time and attention on several activities.

By writing a diary for one week, and getting an overview of how one spend one's time between work and leisure time (Ellegård & Nordell 1997), this might be of great help if one is to make essential changes in one's life balance (Law 2002). Even if the graphs of the time use for these women with rheumatism verified how they had to spend much time for recovery in order to manage their job, in the group discussions they described how the job was of importance to their identity and economy. They also clarified how formal and informal rules and laws made it difficult to change their strategies, because it was important to stay employed, either for their own self-esteem or due to economic reasons.

Some of the items raised in the focus discussion based on the time use graphs, lead to interesting debates that seldom would have taken place without a time registration. Since employees with a chronic disease, who have to live with their bodily restrictions, are dependent on of how they are able to deal with the total strain of their everyday activities (Magnus 2001; Jakobsen 2001, 2009), and to discuss personal reasons for how and why, this process with like-minded individuals might be helpful in order to reorganise their everyday life in a more health promoting way.

Present study describes the time use of disabled employees with a chronically disease. Since it is stated that employment is of importance to our social and material well-being, and thereby has an effect on our income, class, status, personal identity and influence in society (Krokstad et al. 2002), the majority of the women in this study were very much concerned about their financial situation . A change might therefore not be conducive to an independent social life. Another aspect is that one's perception of health also is influenced by social outcomes like employment (Hammell 2004).

How they had to spend time after work to recover in order to stay employed when the functional capacity declined, explained how they had to give a lower priority to social activities. This strenuous situation might be one of many barriers for work participation for this group of people, and might explain why 42 per cent of the employed Norwegian disabled women, aged 16 - 66, received a disability benefit in 2006 and why women's working hours fell by one and a half hour weekly since 1972 (Statistics Norway 2006).

The Norwegian work force is gradually getting older, and thus the chance for chronically diseases increases. As the present study describes, to handle the demands of the working life might be a challenge. Today's working environment is described as busy and a place where demands for

efficiency and speed give little room for necessary adaptations (Torp 2005; Noon & Blyton 2007). When the aim is to modify the work, the main barriers might easily be the lack of possibilities (Van Duijn et al. 2004), a situation that might indicate that when other modifications are not possible, reducing the position could easily be the next solution.

Workers with reduced capacity often need to consult the health service in order to remain in employment. However, to organize time for these visits might be difficult since these consultations usually take place during working hours. How today's health services, dominated by the medical model, can offer useful and relevant help to assist these people to uphold employment, is a question. Since employment rarely is the aim of relevance for these services, it might reveal how the health services mainly are developed to meet the needs of agencies and the professionals rather than the service users. Whether today's working life has opportunity to take the human needs into consideration is another question.

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Children; time use in occupation supporting development

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Abstract

Occupation is of interest to occupational therapist and working with children there is a lack of information about the occupations children are involved in when they develop. Time and occupations are linked together forming a pattern of everyday life but also the influence of social and physical environment have. The **purpose** of this paper was to study children of different ages, writing diaries using Time Geographic Method to record their occupations involved in and in to seek an understanding of children's occupations, both typically developed and visually impaired. **Method** used is Time-Geographic Method**.** This method uses open-end diaries written by a person and capture length of time spent in different activities, places visited and social interaction simultaneously. **Results** The typically developed children are engaged in many spontaneous activities than children with visual impairment but in both groups play and social interactions is most important.

Introduction

Time, as a universal dimension, is thought to guide and structure the human experiences of occupations (Haegerstrand, 1975). The patterns of occupations in which people engage have a temporal rhythm as they occur in and through time and time organized in meaningful and purposeful occupations promote health and well being (Meyer, 1977; Wilcock, 2007). In addition pattern of time can obtain information about cultural values and ecological variables that influence occupation constructed by individual each day and week (Davis & Polatajko, 2010; Ellegaard, 1996; Wood, 2002; Ziviani, Desha, & Rodgers, 2006).

The development and growth of human is of interdisciplinary attention and has been for at least a century. When children grow up topic of concerns are mainly emphasized on development of motor and cognitive skills but children's occupation and how they spend their time has so far been neglected but occupational therapists main concerns are children's occupations and how they are support and linked to children's development, which Davis and Polatajko have highlighted (Davis & Polatajko, 2010). The routine of how different occupations occur in time and space are

also of interest to occupational therapists but is not studied in-depth and particularly not as how different occupations appear in different ages but also on a day or days. There is a lack of a comprehensive method to examine the occupations of children and particularly in combination of time use, utilization of space and in what social context the activities take place. A newer tool: Time Geographic Method can provide occupational therapists with the possibilities to analysis of multiple dimensions of an individual's daily occupations. Ellegaard outlined that the method "is suitable for empirical studies of individual's everyday life activities. Hence, the activities taken together will be regarded as parts of meaningful contexts in different physical and social environment" p 167 (Ellegaard, 1999).

The essential question is: What occupations do children of different age's engaged in? The **purpose** of this paper is to portray how children of different ages can, writing diaries using Time Geographic Method to record their occupations over a given period of time are involved in and in to seek an understanding of children's occupations.

Method

Participants

Time Geographic Method was used to examine the relationship between occupations, time, place and social networks in Swedish children of both genders ranging in age from 5 to 8 years (Kellegrew & Kroksmark, 1999; Kroksmark, 1995) and teenagers from 15 to 16 years (Kroksmark & Nordell, 2001). Data was collected from participants, both typically developed and with visual impairment. All participants lived in an urban area with excellent public transport, were from families with two parents and one sibling, or more and were integrated into mainstream schools in their local area.

Procedure

The diary contained exactly the same headings as the original Time Geographic Method: when (time of the day), what I do (activities), where I am (place), together with whom (social context) and comments. The diaries were written in participant's own words and the entries recording each time they changed activities in a given day. The intent was to elicit a participant's description of an activity exactly as it was experienced (Ellegaard, 1992). The diaries recorded a whole week activities for each participants.

For the younger children, who did not have the writing and the time use skills, the diaries were kept by an observer during school hours. The child's parent made the entries for the rest the day. The diary format is easily understood and can be completed by older children and

adolescents. The diary incorporates information about the time of day, places were the activities took place and the social contacts during a given period of time. The essential information captures the structure of the routines the child has in a particular environment. The home environment has traditionally been a focus for examination of daily routines in occupational therapy as the influence the home has on the child's development is dominant during the first years of life; it is also well documented. However the interest has moved to study occupations and how they create routines in other natural environments the child is involved in. Observation in classrooms provides insight into the routines, environmental element (physical structure and social climate) and the degree to which the teacher structures lessons. Information about the interaction between the child's ability and skills in the school environment can be gained. The school observations together with the diaries written by parents give a complete picture of the child's involvement in different activities and social interaction as well as places visited during the day.

The adolescents were asked to write diaries during their leisure time during a regular week. They also provided the school plan for the same period. Booklets were used for writing diaries but if the adolescents had visual impairment other devices were offered, for example a dictaphone. Despite being offered different devices adolescents with visual impairment chose the booklet, used a black pen and wrote in bigger print.

Processed diary

The diaries were coded according to the activity category scheme (Fig.1) and then processed by a specially designed computer program, which categorized and analyzed the diaries in different contexts (Ellegaard & Nordell, 1997). The types and number of activities recorded differed broadly because of the open-ended diary. The analysis of the diaries focused on the various everyday activities for each participant. Each diary allowed participant's use of time in different activities to be categorised into routines. The context of both social and physical and where they took place was also captured.

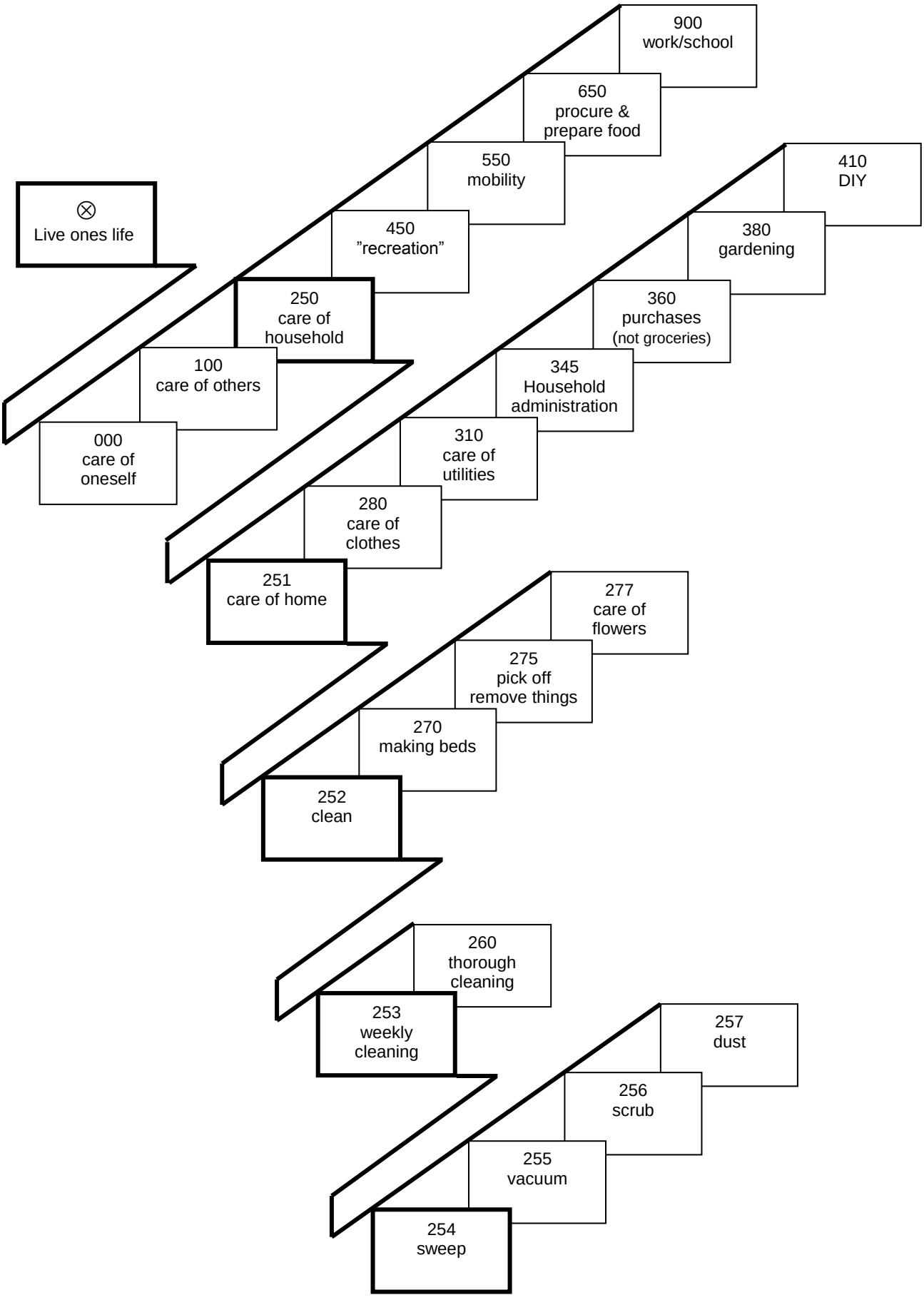

Figure 1. Hierarchical principles are guiding lines for the category scheme. This is an example of different levels with increasing details within the sphere “household care”.

Results

The result is presented as follow, an overall description of the method and then data provided by the diaries of the children and adolescences.

Method

The data analysis showed that most of the activities could be classified according to established categories for adults (Fig1). However the analysis of the diaries observation of the children aged five to seven showed that a new category had to be created namely *play and learn*.

There was also a difference between how boys and girls wrote their diaries. The girls had a tendency to write in more detail whereas the boy often forgot to mention everyday activities, such as having a meal for example. The male teenagers however seemed to wait for a week with more spectacular events scheduled to happen and thought that daily routines were of no interest to the investigators yet this was strongly emphasised when the diaries were handed out.
The observer in the classrooms followed the same outlines of the diaries as in the original; Time geographic method. In the classroom the teachers followed a fairly predictive schedule; therefore the development of codes for classrooms activities was a simple process.

When the children initiated an activity that was not part of the expected classroom activities this was described in a certain data column added to the original diary sheet. From this data codes were developed to identify different activities in the classroom such as locations e.g. desk, restroom, playground locations such as swings and slides. This led to a new category ”play and learn” being developed. The comments contained also the observed child’s behaviour and interaction with classmates.

Children

All children in the study both typically developed and with visual impairment, spent most of their times engaged in play activities. Children from seven up also engaged in the category of learning. In Sweden children start school at seven but are enrolled in a year of preparation from six but for three hours a day. The purpose of this is to get children used to the classrooms situation. However most of the time can be considered as play, social interaction with peers around a subject chosen by the teachers, and preparation for learning academic skills later on.

The most important activity for all children seems to be interaction in different play activities with peers but there is a difference between the two groups. The typically developed had an advantage over the visual impaired in that they could see what their peers were up to in other places e.g. outside in the playground. The activities engaged in varied a lot and changed rapidly

almost from one minute to another; but they could also last over a period of time but change location and purpose of the play depending of the social interaction. Children with visually impairment moved from one peer group to another to see what was going on and when they return the play may have either moved or changed. So they spend most of the time moving around without really got involved in anything if left on their own. They need support of the teacher to become involved in what the typically children were involved in.

Interaction was the most important part of the activities meaning that the children and children with visually impairment had most difficulties achieving that goal i.e. interaction with others in play activities.

Children with visually impairment had different strategies to get involved in activities and social interaction they wished to become involved in. Some depended on the teacher to help them, particularly when the activities were outdoors; they would not move from the door in case they could not find their way back in.

Case: Seven year old boy with visually impairment – one day in school

He sought to be the first child out of the classroom and waited outside the door. From this vantage point, he could visually track the other children how they moved toward their choice of activity. He could then identify the children he wanted to play with and follow them to their location at the playground. If his classmates happen to enter the playground before him, he was unable to find his friends in various playgroups. The relationship between how an activity was performed and the quality of social relationships was also apparent. On the playground the boy frequently ran, jumped, skipped and followed the other children. He was engaged in spontaneous play, but did not participate in organised games with rules. His friends tended to be children who were equally as boisterous. He often gets excited, despite pleas from his peers to stop bumping into or hitting them at times. The other children responded by hitting back or excluding him.

In the classroom setting his seat location appeared to influence his behaviour. He was positioned in the front of the room in an attempt to maximize his use of vision during board activities. He also had the use of a CCTV (Closed Circulate System Television). The positioning of his assistive CCTV device (to the side of him) served as a physical barrier between him and his peers. He used the CCTV for some class assignments. However he also wandered around the classroom to see what the others were doing. Moving around in this manner was not typical for the other children. From time to time his classmates appeared to welcome him but at other times he appeared to be an annoyance to them.

Time Geographic analysis also demonstrated the connection between time use, behaviour, and skill performance. One example from the same boy: during class, the teacher often instructed the students to "read a book" however this instruction was typically given with five minutes remaining in a lesson. It required almost five minutes for him to prepare the CCTV in order to read. Anticipating that was not enough time to read, he instead disrupted his classmates by wandering and talking. As a result no one could read and at least an hour of reading time was lost not only for this child each week but for some others too. His behaviour had a negative impact on the reading time for other students.

Parents write diary

Parents wrote diaries the same week their child was observed in school. Some couples divided the writing between them. They were asked to write what the child was engaged in, but we also got information about the other members of the household. Similar patterns emerged during the week with most of the children. Both parents worked, and during the day children were enrolled in a day-care or school and after school program. Parents picked up their children at school or day-care and went either home or to the supermarket to buy groceries. When home the dinner was prepared and the child either hung around and had a chat with the parent or went somewhere to play on their own. Dinner was often followed by watching TV, usually a children's program for half an hour. Few children had homework to do. Sometimes they played with their sibling but that was dependent on their respective ages. Almost all children went to bed between 8 and 9 pm and before bedtime they went to the bathroom. They all needed help with brushing their teeth and that occupied one parent. In bed one parent would read a fairytale story to the child.

Summarise what children do

During the day children changed activities rapidly. The most important activities were play interacting with peers, such as hide and seek, playing on the swings or slide in the playground during the recess. This occupied around 7% of the school day. In the classroom the activities included reading a book, maths and other activities. Lunch was eaten in a lunchroom. Each child had to pick up a tray, be served the meal by an adult and then eat. After they finished they had to put the dishes away. These lunch time activities occupied another 7 % of the school day.
In the day-care play were initiated both by the children but also by the teacher. Free play took up more than 50% of the time. The activities started by the teacher can be considered as learning new skills. The children also had lunch and snack during the day and they were sitting at the table and helped them self to get food and after they put the dishes away.

Most of the children spend eight hours or more outside home. After school children were dependent on several activities undertaken by parents such as grocery shopping but at home they spent their time in passive activities such as watching TV or waiting for dinner. A few of them went to a playground. Sometime was spent in care for them self such as going to the bathroom. Children moved from home either to school or day-care together and after school places with one or both parents. Sometime they went with friends or siblings to a nearby playground.
Most of the contact children had with their peers were at school and being with their peers seemed to be more important than the activities. The contacts with adults were in pre-determined activities e.g. go shopping.

Adolescents 15 – 16 years old

The distinction between the typical developed teenagers and the teenagers with visual impairment was time spend in different activities, places they visited and their social network.
Both gender with visually impairment reported that they stayed in an activity for a long time and the leisure time appeared to be occupied mostly with homework, watching TV, computer games and sleeping. They were also engaged in planned leisure activities such as horseback riding once a week, attending social events at church or playing guitar. One significant difference between teens with visually impairment and the typically developed was their sleeping pattern. The teens with visually impairment slept around 9 hours every night and the others 6 hours. Leisure time for the typically developed was spending time talking on phone and watching TV at both the same time. Schoolwork appeared occasionally. Sitting in a coffee shop and window-shopping with friends was reported frequently. Some of them had planned sports activities or music lessons once a week. For all teenagers' household activities consisted of cleaning their room and, if asked, they helped preparing the dinner occasionally.

Adolescents with visually impairment had a pattern of going from their home to school and back by public transport or their parents drove them. The boys seemed to use the public transport more frequently than the girls. In the leisure time they went to organised activities. Only one boy, on one occasion, met friends at a downtown coffee shop. All spent most of their time at home and most of that, time in their room. Outside home their parents usually escorted them. If they visited friends or had friends visit them, that was to engage in goal directed activities such as homework.

The typically developed moved rapidly from place to place either walking or biking or, if at a distance using public transport. They met their friends in places suited to the desired activity engaged.

The social network differed among the groups. The adolescents with visually impairment spent most of their time alone or with their parents. Very rarely they talked on phone or met a friend. The typically developed did not spend time as much time with their family than to attend meals. Their social network was occupied by friends, whom they had daily contact.

Discussion

The studies demonstrated that time-geographic methodology could be a useful tool for analysing the everyday of children when they develop. The methodology provides information about the relationship between location, time-use, and social network. This information can contribute to an understanding of the occupations of children where they take place, the social context and time spent. The method used with younger children, who cannot write themselves, have no sense of time, a detailed observation in the natural environment has to be employed. Among researchers it had been widely discussed how collect data from younger children. There is no consensus but it seems that direct observation is the most effective method. However the amount of data provides insights into the relationship between context and activities. These insights are not available through standardized assessment, or secondary sources, e.g. interviews of others. Adults easily understand the results of the time-geographic data analysis but the data needs to be presented and discussed with the person who completed the diary. The same applies with children - they should be included in the discussion.

Children

The prominent feature of the time-geographic observations of the seven year old boy with visual impairment was the coping strategies he employed to adapt to his visual difficulties. Data analysis also provided useful information for the teacher to improve the learning experience for all children in the class. The teacher changed her lesson plan and allows a longer period of time for reading. This change created an environment more suitable for the needs of all children but most suitable for the child with visualy impairment. This demonstrates that time-geographic method is a useful tool for analysis of classroom routines. Diaries written by parents showed typical routines of families with children in Swedish households. The same diaries also showed the impact on the everyday life when one of the family was a child with visually impairment. These children need more support and cannot always engage in the same activities as typically developed children but with support they be able to be engaged in activities of their choose.

Adolescents

The general differences between boys and girls diaries were as Ellegaard found in the diaries of men and women (Ellegaard, 1992). The girl's entries were very detailed and compiled every day routines while the boys recorded activities of perceived importance in a more hierarchical order. Between the diaries of the typically developed participants and those with visual impairment two obvious differences were found as follows.

1, the adolescents with visually impairment spent more time in passive activities such as homework, computer games, watching TV and sleep and engaged in these activities for longer periods. Typically developed adolescents engaged in a wider variety of activities but often pursued each activity for a shorter time.

2, the adolescents with visually impairment engaged in organised activities while the typically developed engaged in both organised activities and many spontaneously initiated activities. Several other differences were observed such as those with visually impairment slept more and the typically developed spoke on phone to friends more often. What was noted was how few activities and social contacts the adolescents with visually impairment were engaged in. They confirmed when asked that they felt alone. Another point noted was that adolescents with visually impairment did not engage in activities that required the manipulation of the hands. Also very few activities were record involving food preparation, household care, or shopping.

An important task during adolescence is to explore new arenas in different ways. Groups of teenager routinely move around and incorporate and use new spaces, indoors and outdoors when meeting friends. They expand their area from close to their home to going downtown to coffee shops, fast food restaurants on a regular basis where they meet other young people. They also engaged in sports activities meet other young people. The typically developed moved around as described either on foot, bike or public transport. Adolescents with visually impairment however, were dependent on their parents to provide transport even when they were going to an established activity. Two reasons emerged and were confirmed by the visually impaired group; they did not know what public transport was available, had no experience of using it and /or their parents are afraid of let them try. When adolescents are dependent on adults it becomes difficult to develop independently later in. This independence later in life is fundamental for adult life. Parents need to understand that their child's need to be able to move around independently is crucial. Occupational therapists are able to support parents and children in developing this independence.

In contrast to the typically developed those with visually impairment did not spend time on phone or have friends visit just for fun. As one teen said "even if I have no problem using the phone you cannot call grandma every day". Also, typically developed and visually impaired

groups, lived in a family with both parents and one or more siblings, varied the amount of time they mentioned their family members. Their main contact with family members was at dinner.

Conclusion

Obvious children with visually impairment needed support of the teacher and parents to get involved in what the others do and to find the locations were the activities took place. Without support they ending up alone and in passive activities or doing nothing. As play is the most important occupation in childhood it is necessary to use a complementary tool in analysing play style children are involved for example the method developed by Anita Bundy (Bundy, 1997).

According to the diaries the adolescents with visually impairment performed fewer activities, engaged primarily in passive or established activities, did not regularly spend time with friends and were dependent on parents for transport. Both groups were enrolled in mainstream school and lived in a bigger city with good public transport. Adolescents with visual impairment had less opportunity to develop the competence in everyday activities they necessary to become independent of their parents. The differences between the two groups were obvious and the lack of friends and ability to move around independently has an impact on the independence in adult live.

The time-geographic method brings up issues that are not identified in interviews or other assessment tools e.g. length of time spent in different activities, pattern of activities, places visit and social interactions simultaneously, which make up a person's daily routine. While writing a diary of everyday activities for a child is time consuming it is the most effective way of recording their activities in their natural environment. The amount of information gained is important in understanding children's activity pattern. The information can be used in discussion with teachers in chancing the learning environment and further used for planning occupational therapy intervention for children with disability. The diary was also an excellent tool to capture behaviour of the child in different activities.

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The Time Geographic Diary in the study of everyday life of disabled students

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Abstract

Labour market participation is strongly associated with education. Therefore higher education can be argued as of special importance to people with impairments. However, participation in higher education for persons with impairment appears to be low. This can be due to barriers within the higher educations system itself, or in the students' everyday life. The purpose of the study "Disability and higher education" was to increase knowledge about the everyday life of students with impairment. The time geographic diary was one of three methods used. Results showed that students with impairment using more time in several of their daily activities. Restrictions exist with due to the impairment itself and the environment.

Keywords: higher education, disability, time, restrictions.

Background

During the last 25 years equality and participation has been the main political goal concerning disabled people's situation in Norway. Despite this paramount objective, the Governmental Action plans have showed minor initiative concerning higher education. Higher education is generally regarded as important for young people, and for disabled persons it is seen as one of the most important strategies to increase participation. For those who have higher education, employment increases between two and three times (Bliksvær & Hanssen, 2006).

According to various White Papers, disabled students have equal rights to education, and legislation in higher education instructs the university to adjust the learning environment to the principles of universal design. Economic support is meant to reduce extra costs due to impairment. In general there has been a shift in political focus, as more attention has been put on environmental barriers.

Research shows that disabled students end their studies earlier than non-disabled, and there are fewer impaired students continuing on Master and a PhD degree (Bliksvær et al., 2006). Disabled students meet restrictions during the application process and in the learning environment at the university (Baron, Phillips, & Stalker, 1996; Berge, 2007; Brandt, 2005; Fuller, Bradley, &

Healey, 2004; Kessel, 2008; Riddell, Tinklin, & Wilson, 2005). They have to be active to increase accessibility, and master challenges associated with differentness and identity (Brandt, 2005; Holloway, 2001; Jung, 2002; Riddell et al., 2005; Stockholms universitet, 2006).

There is less knowledge concerning the total everyday life of disabled students, as to what degree they take part in students' activities, make new friends and socialise, or how they manage organising and living by themselves. Being a student often means moving to live by oneself for the first time, possibly to another part of the country. For the majority of students, handling food preparation, household care and economy for the first time can be quite a challenge, in addition to taken on new expectations in studying and learning.

The intention of my PhD study (Magnus, 2009) was to explore how students with impairments experienced their everyday life, and how barriers restricted and challenged participation. In that study, as in this paper, disability is understood from a relational perspective, which is in line with current policies and guidelines for Nordic research (Gustavsson, Sandvin, Tøssebro, & Traustadóttir, 2005). What is central in this perspective is the recognition that disability is situational. It is impossible to understand disability without studying the interactions between the individuals and the context. A person with impairment is not disabled in all settings, as a blind person talking at the phone. On the other hand, this person is disabled when web-information is inaccessible. The participants in this study all experienced disability in several situations during their everyday life.

The aim of this paper is 1) to show how the time geographic perspective and dairy can be used in studying everyday life experiences of students with impairment, 2) to show and reflect on how time use in activities influence desirable participation, and 3) to describe some of the obstacles students with impairment must overcome in order to achieve equal participation.

Study design

Methods

Time geography focuses on people's everyday life in time and space, and the time geographic diary (Ellegård & Nordell, 1997; Kroksmark et al., 2006) is one of the methods used in this project. Everyday life is shaped by what the individual give preference to, and by the obstacles met. The essence in the diary method is the connections between time, space and activity, where the activities have the main focus (Ellegård et al., 1997). It illustrates routines and preferred activities in a social and geographical context, and indicates what can be the barriers for the

individual. Because barriers have negative influence on participation, they are particularly important to identify.

In studying students with impairment the diary was the starting point of the building of data sources. This was followed by an in-depth interview (Holstein & Gubrium, 1995; McCracken, 1988) and discussions in focus groups (Brandth, 1996; Krueger & Casey, 2000). Data collection and analysis was inspired by the grounded theory and method (Charmaz, 2006).

Participants and data collection

Nineteen students, between the ages of 22 to 44 participated. They studied different subjects in social sciences, art, architectural design, information technology, health and social work or engineering. Impairment included mobility restrictions, hard of hearing, partially sighted, chronicle diseases and dyslexia.

In cooperation with counsellors for disabled students at the university, invitation letters were sent to students they knew. Request to participate were also placed on the home page of the university and some organisations for disabled.

When meeting the participating student for the first time, the student was given both verbal and written information about the diary. They were also given a simple notebook with the headlines: Time, What I do (activities), Where (places), Together with (whom) and Comments (Tab. 1). The participants were asked to make the diary entire as detailed and complete as possible, and to record activities over time in their naturally occurring order, starting with waking up in the morning, noting movements, places visited and interactions with other people during a week. Beneath the heading "comments" the student was free to pass remarks on situations described.

Time	What I do	Where	Together with	Comments
07.30	Getting out of bed	At home	Personal assistant	Not sleeping well
09.00	Eating breakfast	"	"	
09.15	Tooth brush	"	"	
09.30	Met by a taxi	"	Taxi driver	Transport to physiotherapist

Table 1. Extract of Heidi's diary, Thursday

The diaries were individually coded in accordance with the time geographic diary, and adapted through a computer program called "Everyday life" (Vardagen), making it possible to study daily life in graphs and frequency table.

Findings

The following text will illustrate how I have used the diaries in this project based primarily on the graphs of one of the students. This diary illustrates different aspects of how the diary method can contribute in a data collection process. The next part discusses how time use in some activities influence desirable participation, and finally I give some examples of how different barriers can appear in the everyday life of a student with impairment.

Heidi's diary

Heidi is a 40 year old student, living by herself in a flat. She is using an electric wheelchair due to movement restrictions and she has dyslexia. To assist her in activities she has personal assistants and a student assistant for a total 65 hours each week.

The graphs illustrated in figure 1 show her activities and movements in a geographical and social context during one weekday.

Time is shown at the vertical axis, the codes assigned to activities (the left path) are on the horizontal axis and the irregular path illustrates her actual activities. The path should be read from bottom to top. The vertical line represents time spent in an activity whilst the horizontal line shows a change of activity. This graph shows that she got up between 7 and 8 in the morning, and that getting out of bed took one and a half hour. She had a quick breakfast before she was doing her toilet and went by taxi to the physiotherapist. After treatment she went on by taxi to the university where she first of all made some phone calls. She then turned to her studies, listening to an audio book. At one pm she did her make up, and went by taxi, first to the doctor and then to the post office. During the afternoon and the evening she spent time studying, putting up a plan for the following day for the assistant, and watching television. Around eleven the nurses came to help her in bed.

The graph of Heidi's geographical context (in the middle) shows that she spent time at home, within health services, at the post office, the university and in a taxi. The graphs showing her social context (to the right) tells us that she spent time together with the personal assistant, with health care professionals and by herself.

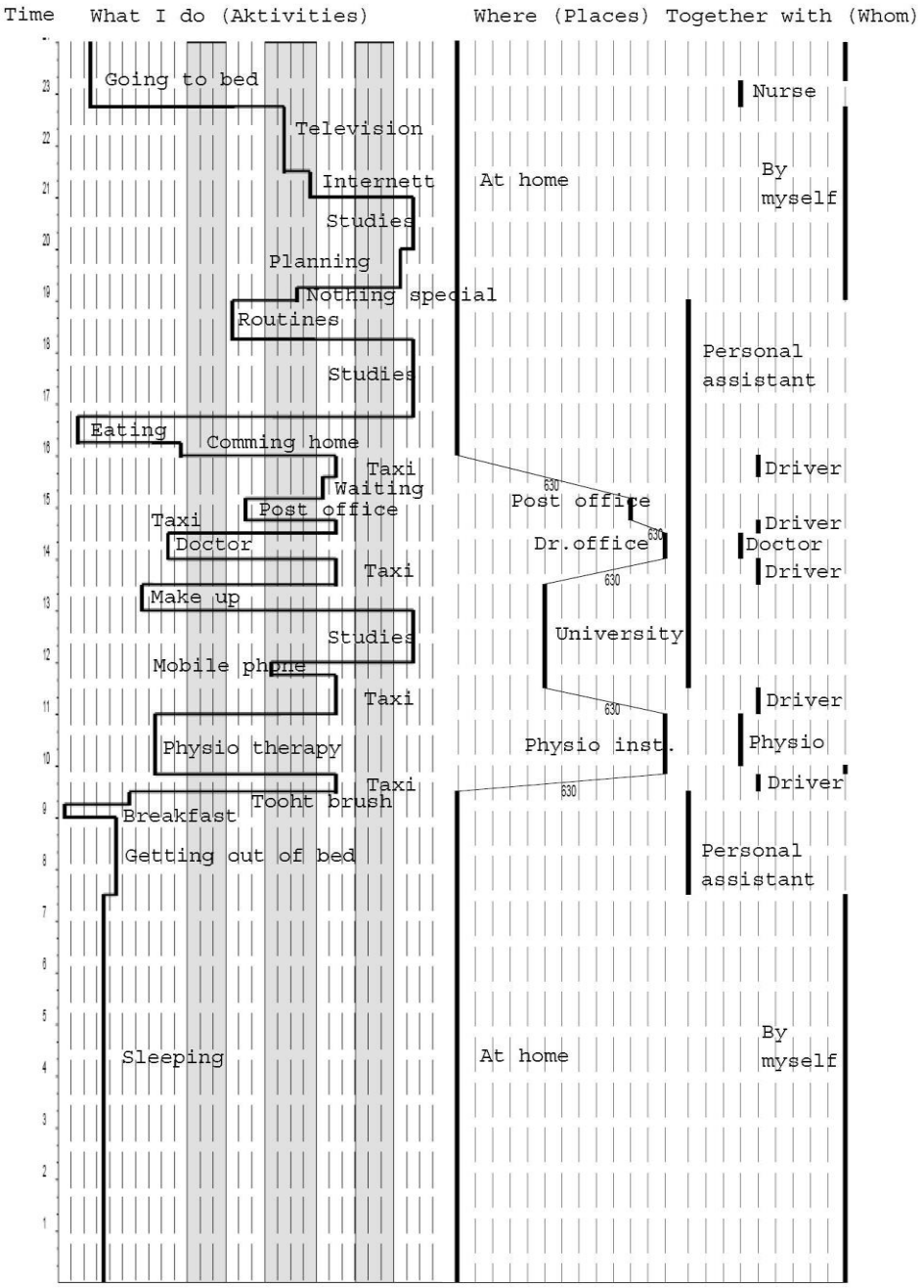

Figure 1. Heidi's Thursday

The next day Heidi stayed at home, spending five hours organising a work schedule for the assistants, and studying in the evening. Saturday she slept until ten, studied from twelve until six in the afternoon, and spent the evening watching television and studying, until the nurse arrived at half past eleven.

Studying graphs and the frequency table raises questions and reflections of Heidi's everyday life. The frequency table indicates how many times each activity has been performed and of how

many minutes each time. By adding minutes spent in planning the work of the assistants, the diary showed that she spent ten hours in these activities during a six days period. She also spent quite some time organising her everyday life. Was this an ordinary week? During the weekend she was out having a meal with an assistant once. Does she meet or go out with other students or friends? She spent time studying both Friday and Saturday evening – is this how she usually spend these evenings?

Heidi made hardly any notes on meals, and she was the only student making a note on "make up". What does her note on make up mean to her? What are *her* reflections of her diary or elements in it? These were questions arising when studying the graphs and frequency tables.

In this case I have used the frequency table to calculate added time spent in administering the assistants during six days, because the graphs gave an impression of this being a time consuming activity compared to other activities in her diary. At the same time the graphs indicate real-time use, showing how this activity is spread during each day, making the activity a part of and shaping her daily life.

The diary shows how insignificant activities, as getting out of bed, or waiting for transport make an influence on the totality of the day. Looking at how time use in one activity has consequences for other parts of the twenty-four hours day, illustrates the importance of studying the whole day to understand conditions affecting peoples everyday life.

When meeting the students for an in-depth interview, information about the coding and studying the graphs was the first step. In this process the student most often started talking about or reflecting on situations or conditions described in the diary. In this way the diary functioned as what McCracken (1988) calls 'an auto-driving', a prompting strategy that can bring elements into the interview that could otherwise be difficult or forgotten. In addition to this both the student and I had, in different ways, started the process of constructing an understanding of how elements of single activities influenced their student life. We had a starting point with some shared descriptions from which we could continue talking about actions and processes shaping their everyday life. For me both the diary and the interview guide were clues during the interview.

Heidi's first comment on her diary was that she was shocked when she discovered the amount of time she spent in "keeping myself going". Personal assistants made it possible for her to live by herself and to start studying, which for her meant an increase of participation in society. Studies were her main project, and she had assistance in all parts of her study activities, as preparing for use of an audio book, taking notes at lectures, starting the computer, and having

lunch. The availability of a personal assistance reduced her barriers in studying. At the same time it caused new challenges due to the amount of work involved in planning and administering.

Using the diary also gave elements of surprise, and Heidi's note "make up" brought along dimensions of importance and priorities in her everyday life. The result of her note on "make up" was an enjoyable discussion about the importance of deciding for oneself how to appear, of dressing properly, and doing her face before going out, and of how she could reach her standards in self-presentation through precise planning and with help of personal assistants.

Even if the students were asked to write as detailed as possible, the detailing level of the diaries varied. Nevertheless, diaries from one week gave information about how main activities were spread during that week, of places the student had visited and of togetherness. It gave an impression of what the student's projects were, and of central activities, but not on their personal intentions. Unless Heidi had made comments in her diary I got no information of processes and embedded meaning in how she spent her day. Additionally, the diary gives no information about tasks she had to put off, or activities she really would have liked spending time in. We do not get an answer on the question of "how" and "why" (Lenntorp, 1999). This is why Ellegård and Nordell (1997) suggest to use the diary method in combination with in-depth interviews.

Time in activities

The student named Håkon (22 years), wrote in his diary*:*

> *"A lot to read. Feel empty. Can't understand how 'normal' people have so much more energy than I have. After all I live a quiet and balanced life compared with others at my age. No partying." (Håkon, 22 years old).*

Håkon points at two central aspects of his daily life. First of all, he had challenges in reading and writing. Due to a visual problem, he needed extra time in reading. He had to rest regularly to prevent headache. Taking notes from lectures also was also time consuming due to cerebral palsy. He taped the lectures, transferred them to his computer at home, listened to it in the evening, and made additional notes.

Even with an accessible and adjusted learning situation, like the one Håkon had, the students with impairment needed extra time in study activities, eg in reading, writing, transferring themselves at campus, using the copy machine or finding their way in the library. Except two students, all of them had reduced their study progression. Even so, they spent at least the same amount of hours in study activities as students studying full time.

The second aspect in this quotation is about energy. Håkon felt empty, and without as much energy as other young people. This was why he and most of the students in this material used more time in rest and sleep than other students without impairment (Alsaker et al., 2006), and what is an average sleeping time in the Norwegian population.

There are probably many reasons for this. One of them I think is the amount of time and energy these students use in a number of daily activities. In addition students in need of support spent extra time working to make their everyday life function. First of all it was a job to learn what your possibilities for support are. When different contracts and arrangements were made, they had to collaborate in making adjustments and changes along the way. Some students had to organise appointments with the nurses coming in the morning, with the personal assistants, with the physiotherapist, the home help, the student assistant and the daily transport. These were essential support to make studies possible. At the same time support involved challenges in making it functions as intended.

Heidi said: "*I would like to be a part of the social life and make myself a network. But organising the everyday life takes all my time and energy."* Heidi needed predictability for herself and for her assistants in order to make it possible to accomplish her study activities. As an example: due to experiences of taxis coming late, she had to plan for this in order to arrive at the university at time. Weeks ahead she also had to plan for how to use the assistants working hours; when to do shopping, to do the floors and iron her blouses.

Managing to find the information needed, making applications and arrangements, keeping an overview and making changes when necessary, were ongoing jobs for students in need of support. If the support did not function, their studies suffered, even if this had their highest priority.

Also students without support spent extra time in ordinary activities, eg dressing, cleaning the flat, doing laundry, shopping or preparing meals. One student described himself as single-handed. He used one hour folding the clean cloths from the tumbler dryer, and he added: *Cleaning the flat, doing the dishes and the laundry, preparing a meal, I need more time in these things than other students. I know now what I* can *do and what I* cannot *do. So I do it in a simple way.*

All people have the same amount of time to spend during a 24-hour period. Extra time spent in studies, in daily activities, and in rest and sleep, has consequence for time use in other activities. The students had to prioritise between time for studies and time with friends. Studies came first, so friendship was suffering.

Restrictions

In time geography restrictions are seen as one of the most central concepts. Everyday life is shaped by what people do, and by limitations met. Options people have in doing are influenced by compound conditions. Using the time geographic concept "restriction", has for me been demonstrative in sorting out different experiences faced by the students. Restrictions can appear differently, and three levels are described; capacity, coupling and authority restrictions (Ellegård et al., 1997). In the following I give some examples of restrictions the students had to handle.

Authority restrictions. The intention of the Scandinavian welfare system is to compensate for extra costs or missing resources to enable people to participate and take care of themselves on equal terms. The system of personal assistants is an example of this.

The number of hours Heidi had assigned for personal assistants were sufficient to do the most important everyday life activities and studies. With an increased number of hours, she would have had a chance to socialise and make friends as she wanted. Limited financing of studies and living, inaccessible web-information system and transport, and a less effective system of signs at campus, are examples of other authority restrictions students faced and had to deal with. These are restrictions that are out of the control of the individual, that now has to handle these additional barriers to participation.

Adaptive literature, such as an audio-book is reserved for blind and extensively visually impaired students. Students with a less extensive visual impairment or dyslexia, like Heidi and Håkon, experienced reading much easier by an audio-book. Legislations excluded them from making use of this resource.

At the same time, a right to adaptive literature also can involve restrictions. Kari was visually impaired, and was entitled to get the literature in an accessible format. She gained a student place late in July, and the study term started in late August, but she hardly got her books before the exam at Christmas. Because of this she had to do an extra year.

Coupling restrictions were experienced in situations where students had to ask the staff for adaptation in their study situation. It concerns staff members, both the administrative and professional. It's about the feeling of not being seriously met and seen, not being given the information you are promised, and the humiliating feeling when having to ask for what could be seen as a favour in the eyes of other students and professors.

There were challenges also outside the university, as when collaborating with home care services in adapting their support to the university schedule, in getting the special transport on time

and in discussing with the counsellor at the Labor and Welfare Administration (financial support for some students). Collaborating means people have to meet on time and have a trust in each other when working together. Students with invisible impairment experienced feelings of rejection and of not taken seriously when describing their needs for adaptation or support. In different ways the students learned that support could turn out to be a threat and a negative challenge. The support systems can make their everyday life easier. It can also involve a struggle to access it, and in handling the feeling of somehow not being worthy of receiving it.

Capacity restrictions are connected to the capacity of the individual (impairment, skills etc.) and their living environment. It also concerns the study environment and equipment available, the accessibility of housing and of other places people visits. These are all elements that can make everyday activities more time consuming and tiring than for most people.

It seems like the external conditions necessary for being able to study are presenting the worst difficult and worrying challenges. It concerns how people understand the experiences these students face, how disability is understood in our society, and how society define support and the process of reducing restrictions.

In order to increase their chances of participation, these students had found individual strategies to get what they needed and to be perceived as worthy of support.
Given the opportunity to participate does not come easily, it seems their strong will and determination is keeping them 'on the road'. To make participation in higher education an equal right, listening to these students' voices and their ideas, I think is one of the main ways getting to know how to recognise and reduce restrictions, and to develop a more inclusive society.

Reflections of future use of The Time Geographic Diary

To sum up, I have used the time-geographic diary as a starting point of data collection. During the in-depth interview the information in the diaries was discussed, restrictions identified and studied, and actions and processes given meaning. By use of the interview guide also other subjects were explored. After analysing the interviews common topics were discussed in focus groups, where my intentions were to further explore and increase an understanding of elements influencing their participation.

Occupational therapists concentrate their attention on increased participation and citizenship for persons with impairments. The time geographic diary can be used to increase our knowledge of

how individuals live their lives and identify circumstances restricting full participation in daily life. By reporting activities in a social and geographical context the individual starts a process of consciousness-raising, both of what can be seen as desirable activities and restrictions the individual meet with. To use this as a starting point of a discussion concerning priorities and future aims, also can indicate an empowering process for the individual.

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Enhancement of Job Motivation and Professional Development through The Time Geographical Diary

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Abstract

Purpose: To support occupational therapists (OTs) through a well structured and systematic process regarding the OTs' new everyday work life in The Occupational Therapy and Physiotherapy Department at Copenhagen University Hospital, Gentofte (CUGH).
Method: In an action study research design, CUGH-OTs kept Time Geographical Diaries that were the starting point of individual semi-structured dialogues between each diary writer and the author. Transcribed statements from the dialogues were studied in a meaning condensation analysis.
Results: 18 OTs kept a total of 120 diaries; 12 participated in individual dialogues.
The processed data from the diaries regarding time, activities, geography and social contact are recognisable representations of the everyday work life. CUGH-OTs spend 50-60% of their working time on patient related activities. Half of this time span, or less, is spent face to face with the patients.
A dilemma emerged: In the OTs daily work, doing the best you can for every single patient is rewarding and motivating. Doing the best you are able to do might result in a decrease in the production, maybe followed by a cutback in resources – because doing your best is too time consuming.
Conclusion, future perspective: Questions regarding i) contemporary OT, ii) demanded documentation, iii) professional supervision among colleagues, iv) geographical conditions, v) time spent face to face with the patient, and vi) the OT's autonomy in the everyday work life will be discussed during the next step of the action study process.

Background

Since the 1990'ies the focus of the Danish Occupational Therapy Service in general has changed from focus on the patient's disease and symptoms to focus on the citizens´ opportunities to perform meaningful occupations and to participate in everyday life (Kristensen & Pedersen 2007; Borg & Runge 2007; Townsend & Polatajko 2007). This change is supported by an increased use of WHO's recommendations in the "International Classification of Functioning, Disability and Health" (ICF) (WHO 2001).

During the same period of years economics in the health care system in Denmark changed from being founded on national and regional grants to contemporary market economics.

At Copenhagen University Hospital, Gentofte (CUHG) occupational therapists (OTs) and physiotherapists (PTs) had separate management and premises until 2006. In 2006 the two merged into "The Occupational Therapy and Physiotherapy Department" (hereafter: *The Department*) – with joint management, finances and with a joint geographical base in what originally were the premises of the PT Department. In 2008 joint sub-departments were created, based on medical classifications. Today (2010) OTs are employed with PTs in 2 out of the 3 sub-departments: the Neurological-Medical Sub-department (NM-dep.) and the Orthopaedic Sub-department (ORT-dep.).

OTs and PTs have a long tradition at CUGH for participating in multi-professional rehabilitation of patients suffering from neurological, medical or orthopaedic diseases. An exception is the rehabilitation of the hand-surgery out-patients. Here occupational therapy is the only therapy-profession involved, here the bodily function and anatomy draws great attention (Fitzpatrick & Presnell 2004), and here local studies from 2008 and 2009 show that every other hand surgical out-patient does not experience that the OT has focus on activity and participation.

In 2008 *The OT Practice Development Project* was launched at CUHG supported by the Danish OT Association in order to implement i) validated assessment tools and ii) an OT working process model as the platform for the OT service at the hospital.

In addition to this *The Department* in 2008 began the implementation of the ICF as a conceptual platform for the two professions' health-professional communication and services. In June 2009 the OTs at CUHG selected the Canadian Practice Process Framework (CPPF) (Townsend & Polatajko 2007) as the OT working process model for the future. In accordance with CUGH demands and guidelines, drawing up clinical guidelines for OT-related assessment, rehabilitation, and evaluation was initiated in 2009. Validated assessment tools and CPPF will be implemented following these guidelines.

A process of this type is a radical change for many of the OTs at CUHG. The whole idea and the details have frequently been discussed among the OTs. Some colleagues met the process with scepticism: "Is this really necessary?" or "The OT profession will disappear, when we merge with the PTs" – some with delight: "This is what I was taught in the OT education programme, now let's get going!"

It seems as if the discussions more or less have paralysed some of the OT's commitment and motivation for the job and for the OT professional development at CUHG.

Through a well structured and systematic data collection process regarding the OTs' new everyday work life, followed by a feed back of the knowledge generated from the collected data in

order to generate precise questions and problems that need answers and solutions, the purpose of this study is to support each OT during this time of change.

Method and material

The study is designed according to the action study design (Launsø & Rieper 2005). When using this design, researcher and participants collaborate to examine and generate knowledge regarding the problems. Next they plan for a change as they progress through a cyclical process towards a resolution. Two data collection methods were used in order to generate knowledge about the OTs' everyday work life: The Time Geographical Diary and individually performed qualitative semi-structured dialogues.

In order to collect data from workdays characterised by rich variation in the participants' patient related activities, the participants kept Time Geographical Diaries covering the working hours on the same weekday at the same time of the month (the first Wednesday every month) in a period of 9 months. Answering the questions: 1) when do you start a new activity (what time of the day)? 2) what do you call this activity?, 3) where are you?, and 4) with whom do you perform the activity?, the participant continuously formulate his/her experience of the everyday life at work.

In addition the participants were asked to mark every patient-related activity with the one, two or three ICF themes that were in his/her mind while performing the activity. The three ICF themes were: a) *bodily function and anatomy*, b) *activity*, and c) *participation* (WHO 2001).

Every diary was adapted through the computer software "Vardagen" ("Everyday Life"). Graphs and frequency tables for each diary were drawn from the software. The amount of self-reported time spent on each project and the amount of time in which the participant documented a deliberate focus on ICF-themes were added up to demonstrate further results through descriptive statistics regarding average and mean values.

Each participant, who had kept one diary or more, was invited to a one hour long semi-structured dialogue with the author. The purpose was to offer a mirror in which he/she would be able to reflect on his/her own everyday work projects and activities, the new "pocket of local order"[10], called *The Department*, and on *The OT Practice Development Project* (Ellegård & Nordell 1997).

[10] One of the important concepts of Time Geography at the macro-level is the *pocket of local order* – defined as a well-defined geographical area, in which order and rules are maintained by human activities which confirm the order (Ellegård 2001, Lentorp 2004). This definition is familiar to the occupational therapy concepts: *occupational circumstances* and *context* (Kielhofner 2002), and to the reflections on the influence from environmental elements on human occupation that Townsend and Polatajko (2007) explain.

Graphs, frequency tables, and descriptive statistics were handed over to the participant prior to the dialogue. The participant was asked to prepare for the dialogue by studying the information.

The dialogue structure was as follows:

A. The participant was asked to *describe of his/her workplace* according to the proposed preparation.

B. In the perspectives of the generated graphs, frequency tables, and descriptive statistics, the dialogue focused on *flow/interruptions*, *distribution of activities and the amount of time spent on work projects*, and *having ICF in mind* when performing patient related activities.

C. The participants were asked to reflect on: *Who makes the decisions* in your everyday work-life?

During the dialogues the author took handwritten notes regarding the participant's statements. The transcribed statements were studied in a meaning condensation analysis (Kvale & Brinkmann 2009) looking for potentials, constraints, and dilemmas.

Thus the knowledge gained from the first part – the Time Geographical Diary – has been the starting point for the next step: the individual dialogues and the results of the study as a whole will be the starting point for further discussions and decisions.

Irrespective of the length of his/her employment, any OT employed at CUHG at any one of the diary Wednesdays during the 9 months was asked to keep a diary on that day.

If he/she was employed at *The Department* during the period in which the dialogues took place, every OT who had kept one or more diaries was invited to a semi-structured dialogue with the author.

During the 9 months 9 OTs in the ORT-dep. and 9 OTs in the NM-dep. kept a diary for one day or more. The 18 OTs' diaries covered a total of 120 days, divided like this:

- 13 participants kept 6, 7, 8 or 9 diaries each, and 5 participants kept from 1 to 3 diaries.
- The 9 participants from the ORT-dep. kept 70 diaries. 3 out of 9 participants in this sub-department have a bachelor degree in OT. 4 out of the 9 participants in this sub-department together represent more than 100 years of experience in the hand-surgery field.
- The 9 participants from the NM-dep. kept 50 diaries; 5 out of these 9 participants have a bachelor degree in OT, indicating that they – like the BA-OTs in the ORT-dep. – presumably are familiar with the WHO-classification: ICF. The 4 most experienced participants in this sub-department together represent approximately 40 years of experience within the neurological and medical field.

Every participant, who was invited to the dialogue sessions, accepted. Thus 6 participants from the ORT-dep. and 6 participants from the NM-dep. participated in the dialogue session with the author.

Ethics

Each participant was informed in writing that participating in the study was intended to generate knowledge that should qualify job related discussions, his/her participation in such discussions, and decisions regarding his/her own everyday work life.

The participants were informed in writing that sharing the diaries with the author and participating in the dialogue session was considered as an equivalent to accepting the data being part of the study. Prior to the analysis each participant was asked to read the transcribed statements from the dialogues and to correct misunderstandings. Only with this acceptance the transcribed statements would be a part of the analysis.

Results

Results from the Time Geographical Diaries

The reported everyday work related activities were grouped into 5 work related *projects*[11]. See Table 1.

Table 1

5 work projects in each OT's everyday life

- **Patient related activities *with* patient contact** – e.g. assessment, rehabilitation, counselling, conferring, home visits etc.
- **Patient related activities *without* patient contact** – e.g. exchange of patient related information, practical preparation, analysis, planning, discussion, ward rounds, writing medical records etc.
- **General health related activities** – e.g. activities related to the profession, organisation, or a position of trust.
- **Service activities** – e.g. tasks with practical purposes, taking a break, lunch, etc.
- **Transportation** by foot between two localities at the hospital

The descriptive statistics, generated from the diaries, will be presented through box and whiskers plots. Here the participants are able to locate their own individual values amongst their colleagues'.

Quartiles and mean values of the expenditure of the 5 work projects are shown in a box whiskers plot in Figure 1. The values from the two sub-departments are separated.

[11] A *project* includes an assembly of human activities that are interconnected with an overriding meaningful theme, a unifying motivation and goal, and which is accorded value by the individual and by the social context (Ellegård & Nordell 1997). This definition is compatible with the occupational therapy familiar concept: *occupational form* (Nelson 1988).

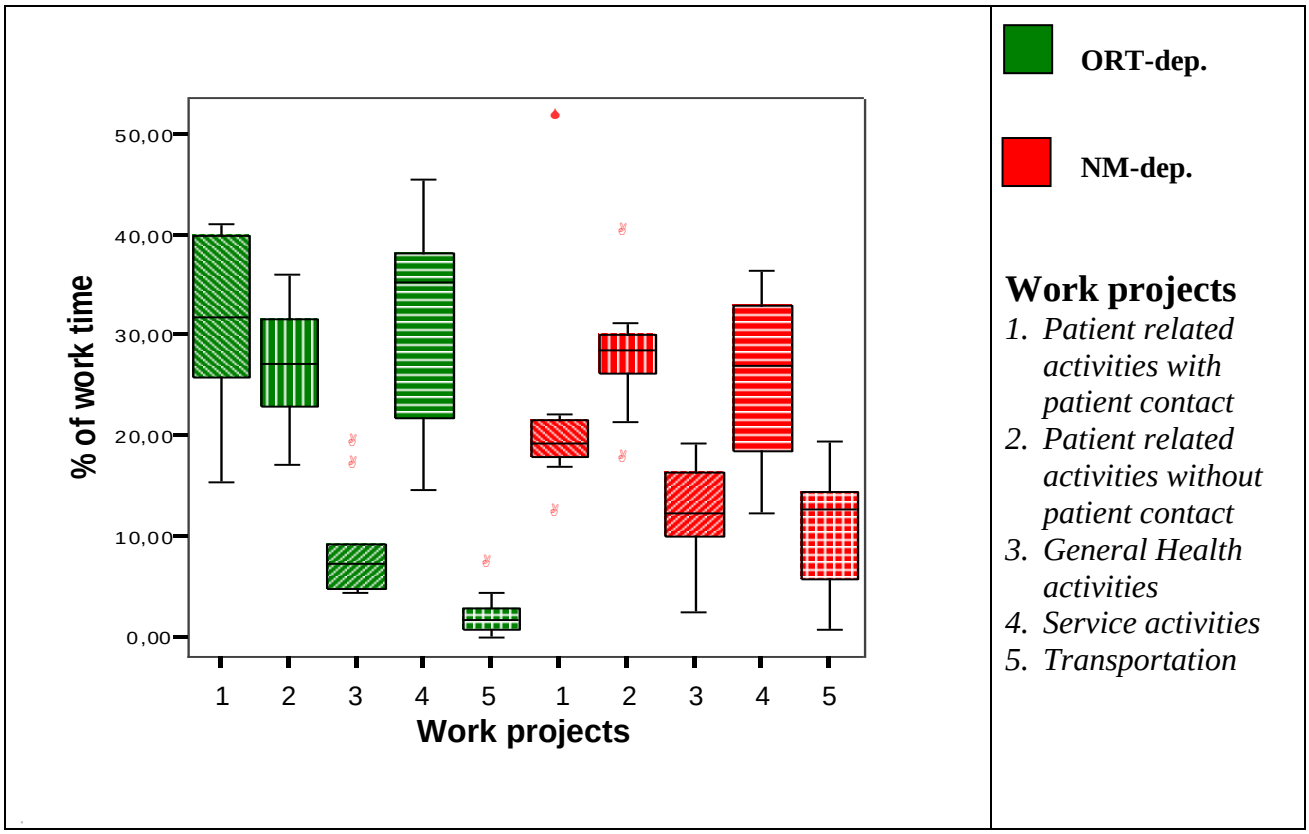

Figure 1. Distribution in % of work time spent on work projects

In the ORT-dep. the individual values of the expenditure of the *patient related activities with patient contact* and *service activities* hold ranges from 14 to 41 % respectively from 15% to 46 % of the total work time. The values of *patient related activities without patient contact* are varied from 17% to 36%, while the values of *general health activities* and *transportation* hold range from 4% to 9% respectively from zero to 4%.

In the NM-dep. the individual values of the expenditure of the *patient related activities with and without patient contact* hold ranges from 12% to 22% respectively from 21% to 31%. The values of *general health activities* and *transportation* hold ranges from 2% to 19 % respectively from 1% to 20%. Lastly, the values of *service activities* in this sub-department hold ranges from 12% to 37 %.

In Figure 2 quartiles and median values of expenditure of time with ICF themes in mind are shown in a box and whiskers plot. Values from the two sub departments are separated.

In the ORT-dep. the individual values of time with respectively the *activity* and the *participation* themes in mind hold ranges from 7% to 32% respectively from zero to 32 %. However, the individual values of the time with *bodily function and anatomy* theme in mind hold a

very large range – from 42% to 85%. A probable explanation might be the formerly described variation in educational and experience related background of the participants in the ORT-dep.

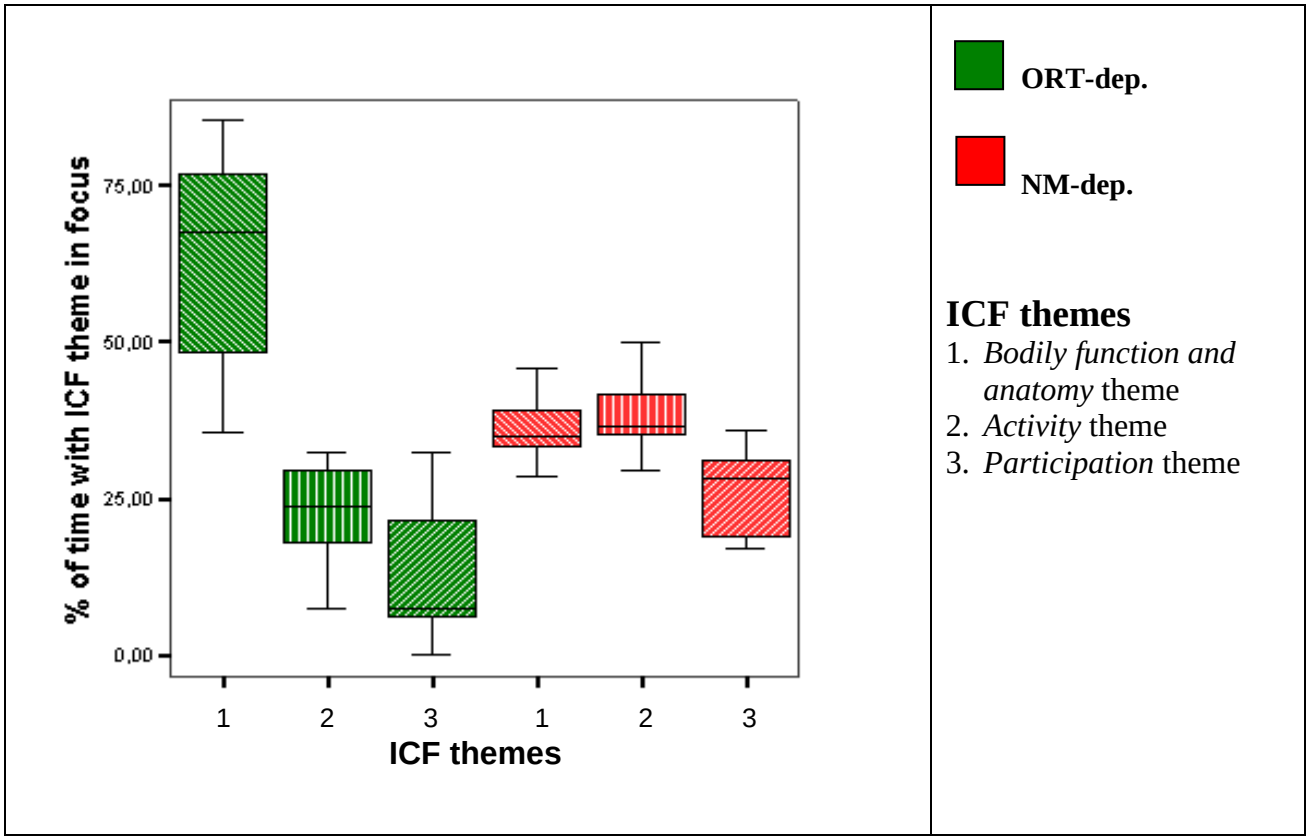

Figure 2. Distribution in % of time with ICF theme in focus – in patient related activities.

Additionally the diaries revealed that in the ORT-dep. the OTs reported ICF themes in their mind in 64% of the patient related activities in total, while in the NM-dep. the OTs reported ICF themes in their mind in 89% of the patient related activities in total.

Results from the participants' dialogues with the author

The results are edited sub department wise and according to the structure in the dialogue: 1) My workplace, 2) Flow and interruptions, 3) Distribution and amount of self-reported time spent on work projects, 4) having ICF in mind and 5) Who makes the decisions?

The Orthopaedic Sub-department

My workplace

The overall opinion of the sub-department as a workplace is divided: the opinion of the less experienced and the opinion of the more experienced participants. *The less experienced*

participants are sorry that the predominant culture in the sub-department declares some suspiciousness towards new ways of thinking and doing in work related matters. Additionally, the appropriateness of the previous informal management of the OT-service, then placed in the hands of the most experienced colleagues regarding hand surgery, is questioned by some of the participants. *The more experienced* participants are proud to be a part of the hand surgery field and of being valued as a highly competent collaborator by the hand surgeons. The more experienced participants describe *The Department* as a platform for new alliances with like-minded PTs – e.g. when debating the appropriateness of the management of *The Department*, the young colleagues' sense of responsibility etc. The same participants regard the new management of *The Department* as a top-down management. For a couple of those participants this has lead to decreased commitment at work and eventually to resignation.

Regarding possibilities for sharing knowledge, however, there is a common understanding among the participants: The former daily routines and opportunities for shared professional reflection, supervision, and development are hard to obtain at the new premises. In addition to this, it is difficult to find occasion for sharing the accumulated knowledge regarding rehabilitation of hand surgical patients – a problem enhanced in the future, when the experienced colleagues retire.

Flow and interruptions

Almost every participant from the ORT-dep. was not surprised to see the graphs showing his/her daily activities, the amount of continuous periods of certain activities, the interruptions, and so on.

With regard to their job, characterised by many interruptions, a couple of the participants stated that having to do with human beings, in a many faceted busy organisation like a hospital, leads to an everyday life marked by constant change in planning – a fact they actually appreciate. Another participant argued that the professional experience might help you to prioritize in the situation and through this be able to consider a de facto interruption as no interruption. And finally a participant said: "When I do what feels good and what I know I do well, I don't consider a telephone call or a colleague's question as an interruption, even though I'm in the middle of a training session with a patient"

Time spent on work projects

Most participants were not surprised to se his/her distribution of time regarding the 5 work projects. The distribution was felt similar to the way he/she understood the everyday work-life. Nevertheless, several participants were surprised to se how much time he/she spent on *Service* and *General Health* related activities. Apparently those facts did not match the personal perception.

Almost every participant had a resigned comment to the amount of time spent on *Patient related activities without patient contact*. One said: "This documentation demand is getting out of hand."

Having ICF in mind

A participant commented the ICF-topic: "I've realised how the ICF concepts are possible to have in mind when you perform *any* patient related activity – whether the patient trains body related functions, activity skills or not." - revealing how the diaries have brought ICF in mind throughout the process.

Besides this, it seems as if a contradiction was presented regarding ICF. A comment like: "We always have activity and participation as well as bodily function and anatomy in our minds – we are OTs, you know" was common in dialogues with the participants from the ORT-dep. So were the reactions to the individual and general figures that show how the *bodily function and anatomy* is the dominant ICF focus: no big surprise.

Some participants from the Ort-dep. point out that the data regarding this topic have to be analysed and interpreted with reservations because they misunderstood the diary-instructions round ICF in their first diaries.

Who makes the decisions?

The immediate answers were: "Our boss!!", "I do, most of the time." or "That depends….".

The first answer and answers like this, were given by the most experienced participants, while the less experienced participants gave answers like the second or third example.

After the immediate answers reflections unfolded the following details, showing variations in the conception of autonomy in the everyday life at work:

On the one hand the management decide e.g., which health care related interests that *The Department* and CUHG are obliged to serve, the use of the premises according to the formal rules and decisions, etc. Regarding the patient with a specific diagnosis, clinical guidelines and formal procedures decide how to carry out assessment, training, etc.

On the other hand each OT and his/her colleagues decide in collaboration how to organise the daily tasks. The participants pointed out how it is possible to make one's own rehabilitation and training related decisions within the frames and regulations. One participant even stressed how she found it a rewarding challenge to use her creativity and empathy in trying to make the most beneficial decisions regarding the specific patient's rehabilitation and situation as a whole.

The Neurological- Medical Sub-department

My workplace

The participants characterised the NM-dep. as a workplace marked by a co-operative and positive spirit in which supportive colleagues share knowledge and experience. *The Department* is unanimously described as a unit where the knowledge of each other – personally and professionally – and the common geographical premises make it possible to improve the coordinated OT and PT services.

The participants described several potentials in details, e.g.

- The clinical guidelines and prefabricated phrases for the medical records. Both of them are considered as strengthening factors in terms of the multi-professional intervention, and the quality of it.
- *The OT practice Development Project* regarding OT-professional discussions, standardised assessment tools, the CPPF, and the increasing focus on the activity and participation perspectives.

On the other hand most of the participants find that the increased "production" demand put the brake on the OT-professional development.

It is obvious that the problems regarding the patients' bodily function and anatomy are in focus during the patients' very short stay at the hospital. Despite this fact, the broad perspective on the patient's situation and the ward staff's support of the OT intervention is reciprocally self-reinforcing in terms of a client centred practice. Unfortunately this is not a fact in every ward at CUHG to which OTs are appointed. In several wards it is a continuous struggle to get occupational therapy to be considered as a valid part of the health service.

Flow and interruptions

In general the participants described the everyday life at work as coherent, despite how much the graphs and frequency tables vary from day to day. The participants also stated that they consider the variety in type of patients, tasks, collaborators, local premises etc. as elements in a positive dynamic in the everyday life at work. Regarding allocated time to concentrate on a specific project, a participant said: "When I work at the top of my capabilities, concurrent activities like telephone calls, spontaneous interruptions by other professionals are not disturbing the dominant activity."

Time spent on work projects

In relation to the inner conception of the everyday life, no participant in the NM-dep. made any special comment on his/her documented time spent on work projects. They recognised how the everyday life at work was illustrated in graphs, frequency tables etc.

The dialogues revealed that OTs within the neurological and medicine fields at CUHG visit and train most of the in-patients in the ward – transportation to follow. Most of the participants regard transportation as a waste of time – like one of the participants rhetorically asked: "Walking isn't working, is it?" And several participants referred to ideas and initiatives aiming to decrease transportation. One participant, however, said: "During transport you have time to make professional reflections before or after working with a patient". Thus transportation might be a part of the work projects: patient related activities.

Having ICF in mind

Some participants mentioned like the OTs in the ORT-dep. that the specific ICF-themes are not consciously present in the daily work – but they are possible to make aware e.g. through diary writing.

Regarding the distribution of focus on the ICF themes: *activity* and *participation*, the participants' reactions on the results revealed small variations. A participant said: "You see, I'm in the bathroom day in and day out" implying that the *activity* theme is supposed to be in focus. Another realised how many times a week she spent time screening e.g. neurological patients for swallowing problems – "No big surprise to se the large amount of bodily focus."

Yet another participant concluded on the descriptive statistics: "It is nice to se how much time we spend focusing on *activities* and *participation*, regarding that we work at an emergency hospital, where problems related to bodily function and anatomy are predominant".

Who makes the decisions?

One answer to this was illustrative for the NM-dep.'s participants: "I do! – That's how I feel! "

Another participant explained the experienced autonomy like this: "My job description does – I signed the job description when I was employed. So: I do." Several participants from the NM-dep. conclude that they appreciate how the present management manage to get the employees to feel free in the everyday work *and* to accept the contextual responsibility for one's actions. They experience that this present balance between freedom and responsibility motivates one to strive to do one's best.

Reflections regarding the expectations and the setting were e.g. unfolded thus:

Our collaborators (physiotherapists, ward staff, doctors etc.), the clinical guidelines, the working process model, the specified theoretical framework like CMOP-E – they all form the expectations and the setting comprising an OT's work. Regarding the guidelines etc. as a limiting factor, a participant said: "Well, you have to follow the guidelines and instructions, but you are free to use them in any combination, using your professional judgement to serve the patient in the best possible way."

Discussion and conclusion

The Time Geographical Diary and the everyday work life

In general the participants recognise their everyday life at work in the descriptive statistics that are generated from the diaries. The continuous activities and interruptions that are illustrated in the software output are in agreement with the participants' perception of the everyday work life. Thus the face validity of the Diary method has shown to be high.

However, some of the facts that emerged from the diaries were read with surprise. In particular the topics *patient related activities with* or *without patient contact* were discussed in the dialogues.

Three conditions stand out: i) This is a study of self reported data from 18 individual OT, who declare that the processed data regarding time, activities, geography and social contacts are recognisable representations of the everyday life at work, ii) OTs at CUGH spend between 50% and 60% of their working time on activities related to the patients, and iii) only half of this time span, or even less, is spent with the patients. Based on these facts the a three-forced dilemma emerges:

- The limited time expenditure for activities with the patients – activities that the participants indeed regard as challenging, rewarding and motivating.
- The OT professional theories and ideals that highly recommend the uncompromising client centred practice, focused on activity and participation.
- The demands from the contemporary market economic principles and ideals.

The consequences of the dilemma could be phrased like this: *In the OTs daily work, doing the best you can for every single patient is rewarding and motivating. Doing the best you are able to do might result in a decrease in the production, maybe followed by a cutback in resources – because doing your best is too time consuming*

It might be necessary, here and now, to ask oneself, the colleagues and the management: What if this dilemma is not the problem but the challenge? When accepting the challenge: to build the best possible occupational therapy service under the given circumstances, this study pointed out 6 questions, that have to be discussed. (See Table 2).

Table 2

Important questions to be discussed (The next step)

- How do we develop the daily clinical practice in accordance with the accumulated knowledge, the ICF classification and contemporary occupational theories and methods?
- How do we find time to produce the clinical guidelines, to implement new methods and to look up the evidence for our service – without a decrease in ”production”?
- How will we be able to implement professional supervision between colleagues?
- How will we make the most of the geographical conditions – no matter if the challenge is the new premises, or the challenge is the time expenditure of transportation?
- How do we do, when we want to reduce the time spent on the patient related activities without patient contact, without reducing the quality of these activities?
- How do we maintain and develop the autonomy in the OT's daily work? And how do we challenge the authorities to do their best – without letting their legal decisions paralyse our ability to make our own decisions in our daily work?

Instead of still being a part of the daily conversation throughout breaks and in other informal situations, these questions are generated through a systematic study process. A formal and constructive discussion hopefully will produce sustainable changes in the OTs' every day life at work. Such discussions are the next step of this action study – and of *The OT Practice Development Project*.

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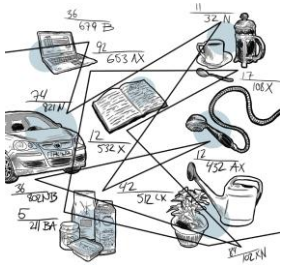

Time Geographical Diary

Workshop, 7th of May 2010:
"Time Geographic Method – promising use in rehabilitation and health promotion"
15th World Congress of the World Federation of Occupational Therapists, Santiago, Chile

Date:

Time	What	Where	With whom	Comments