A multifaceted practice?

An investigation of methods used by occupational therapists in municipal services when assessing persons with cognitive impairments

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Summary

Norway is facing demographic changes which affect municipal health services. Under the Coordination Reform Act, the municipalities have received new responsibilities, such as early assessment of needs for health services and follow up services closer to people's homes. It is estimated that the number of occupational therapists (OTs) in municipal services should triple in order to meet the health service challenges of the future. Despite its prevalence and significance, the practice of Norwegian OTs working in the context of municipal care is a little explored area.

The overall aim of this thesis was to investigate use of methods among Norwegian municipal OTs when assessing persons with cognitive impairments.

The thesis includes three studies and the participants were OTs working in Norwegian municipalities. **Study I** used a quantitative approach, with an online survey investigating what methods and standardised assessment tools 497 OTs used, as well as the rationale for their choices. **Study II** explored experiences through individual interviews of 14 OTs and s**tudy III** explored experiences through focus group interviews of 19 OTs.

The results indicate that when doing assessments, the participants prefer to use unstructured observations and informal interviews, in addition to standardised assessments.
Doing assessments in the context of municipal service was described as multifaceted. Being OTs and belonging in municipal services, they meet many expectations towards OT service, which did not always match their own perspective of what are OT's responsibilities. Due to future challenges for municipal services, the participants expressed a need and a wish to become more competent when doing assessments.
The results indicate that the participants are working under several conflicts on a daily basis. They have to make choices that are influenced by not only what they view as beneficial for people but also what is feasible in their practices. The findings of invites OTs to reflect upon and create awareness of their choices when doing assessments, in addition to which values and attitudes are influencing their practices. This thesis suggests that more use of occupation based standardised assessment tools are needed in order for OTs in municipal practice to work in line with evidence based practice.

Keywords: OT, community practice, cognition, assessment, observation, dilemma

Sammendrag

Norge står foran demografiske endringer som påvirker de kommunale helsetjenestene og gjennom Samhandlingsreformen har kommunene fått nye oppgaver som tidlig vurdering av behov for helsetjenester og oppfølgingstjenester nærmere der folk bor. Det er antydet at antall ergoterapeuter som jobber i kommunehelsetjenesten bør tredobles for å møte fremtidens helseutfordringer. Til tross for omfanget og betydningen av norske kommuneergoterapeuter er dette et område som er lite utforsket.

Målet med denne avhandlingen var å undersøke bruk av metoder for kartlegging av mennesker med kognitiv svikt blant norske kommuneergoterapeuter.

Avhandlingen er bygd opp rundt tre studier og deltakerne var ergoterapeuter som jobber i norske kommuner. **Studie I** benyttet en kvantitativ tilnærming, med en nettbasert undersøkelse som fokuserte på hvilke metoder og standardiserte kartleggingsredskap 497 ergoterapeuter brukte, i tillegg til begrunnelsene for deres valg. **Studie II** undersøkte 14 ergoterapeuters erfaringer med å kartlegge mennesker med kognitiv svikt og **studie III** undersøkte 19 ergoterapeuters erfaringer gjennom fokusgruppe intervjuer.

Resultatene indikerte at de mest brukte metodene for kartlegging var uformelle intervjuer, observasjoner og standardiserte kartleggingsredskaper.

Å gjennomføre kartlegging i kommunehelsetjenesten ble beskrevet som en kompleks oppgave. Som ergoterapeut innenfor kommunehelsetjenesten, møter deltakerne mange forventninger til ergoterapitjenesten, som kanskje ikke samsvarer med deres eget oppfattelse av hva som er ergoterapeuters ansvar. På grunn av de fremtidige utfordringene som kommunehelsetjenesten står overfor, uttrykte deltakerne et behov og et ønske om å utvikle sin kompetanse i å gjennomføre kartlegging.

Resultatene i denne avhandlingen henstiller ergoterapeuter til å reflektere over og skape bevissthet rundt sine valg når de gjennomfører kartlegging, i tillegg til hvilke verdier og holdninger som påvirker deres praksis. De jobber daglig under flere konflikter. De må ta valg som påvirkes av ikke bare det de ser som gunstig for menneskene de jobber med, men også hva som er mulig i deres praksis. Denne avhandlingen antyder at kommuneergoterapeuter må implementere mer bruk av standardiserte aktivitetsbaserte redskaper for å jobbe i tråd med kunnskapsbasert praksis.

Nøkkelord: ergoterapi, kommunehelsetjeneste, kognisjon, kartlegging, observasjon, konflikt

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To my dearest **Rolf Einar**; thank you for being there through thick and thin during this time consuming endeavor. You provoke me, you fight me, you make me so angry and I love you so much for being there and supporting me. I look forward to a bright and hopefully more relaxed future together.

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Content

List of papers

This thesis is based on the following papers, which will be referred to by their Roman numerals in the forthcoming text:

I Stigen L, Bjørk E, Lund A, & Småstuen M (2018). Assessment of clients with cognitive impairments: A survey of Norwegian occupational therapists in municipal practice. Scandinavian Journal of Occupational Therapy, 25(2), 88-98. doi:10.1080/11038128.2016.1272633

II Stigen L, Bjørk E, & Lund A (2018). The conflicted practice: Municipal occupational therapists' experiences with assessment of clients with cognitive impairments. Scandinavian Journal of Occupational Therapy, 1-12. doi:10.1080/11038128.2018.1445778

III Stigen L, Bjørk E, & Lund A (2018). 'The power of observation'. Occupational therapists' experiences of doing observations when assessing people with cognitive impairments. Under review.

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Preface

Since the author of this thesis graduated as an occupational therapist (OT) in 2000, she has worked with persons with cognitive impairments mainly within the field of specialised rehabilitation, but also within municipal service. The interest in how central the impact of cognitive impairments are on performance of everyday occupations have increased as experience has been gained working with persons with acquired brain injuries. Working in specialised rehabilitation, she got the opportunity to initiate interventions for persons with traumatic brain injuries (TBI) at a very early stage in the rehabilitation process. Both cognitive functions as well as occupational performance in many cases developed rapidly in the early stages, so the assessments performed was occupation based, in order to give an indication on what occupation based interventions were applicable.

As the discharge date approached, one frequent challenge experienced was when contacting the municipal OTs, who were very accommodating and willing to follow up persons upon discharge and one of the first questions they asked was 'what assistive technology is he/she in need of'? As the persons in most cases were in need of OT related to structuring and mastering their daily occupations due to cognitive challenges rather than modifying the environment and introducing assistive technology, the OTs in most cases responded that they unfortunately did not have the knowledge, skills nor time to do so.

When working in municipal services, one of the first dilemmas the author encountered was the expectation that as an OT, your responsibility was to mediate and assemble assistive technology. In collaboration with my leader and colleagues, a reflection process was initiated. Who had defined what I was supposed to do, when my competence as an OT was so much more versatile than just mediating and assembling assistive technology? After a period of contemplating how to approach this issue I initiated a period of emphasizing and verbalizing OT skills related to looking at the opportunities within the person and the occupation, instead of only the environment. By also using an occupation based assessment with every person referred with cognitive impairments, I managed to emphasize the power in the occupations, in dialogue with not only the persons with cognitive impairments but also with my non OT colleagues.

Thus, after a period of six months the nature of the referrals had changed from mainly focusing on implementing/acquiring assistive technology to requesting me to assess the impact of cognitive impairments on people's occupational performance.

My hope for this thesis is that the work can contribute to discussions and reflections within a complex and important field for OTs in order to point out the direction of development for municipal OTs. I also hope it can contribute to discussion among OTs, within all areas of work, who are engaging in assessment of persons with cognitive impairments.

LS
Leirsund, June 2018

List of abbreviations

ADL	Activities of daily living
AMPS	Assessment of Motor and Process Skills
A-ONE	Arnadottir Occupational Neurobehavioral Evaluation
CDT	Clock Drawing Test
COPM	Canadian Occupational Performance Measure
CRA	Coordination Reform Act
EBP	Evidence based practice
MMSE	Mini Mental Status Evaluation
OT	Occupational therapist
PRPP	Perceive, Recall, Plan and Perform system analysis
TMT A+B	Trail Making Test A + B

1.0 Background

This thesis is built around three studies investigating methods used by occupational therapists (OTs) in municipal services when assessing persons with cognitive impairments. In the background section, literature, theory and previous research related to assessment of persons with cognitive impairments will be presented. The section starts presenting demographic changes which influences Norwegian health services, in addition to governmental reforms which have led to new responsibilities for both municipal services in general and also OT services. Theory on cognition and cognitive impairment will thereafter be presented, followed by theoretical perspectives on assessment and research on assessment tools used by OTs. The final chapter in the background will present the overarching theoretical frame of reference for the thesis.

1.1 Demographic changes in the population

The Norwegian population have in general good health and during the last hundred years, there has been a significant improvement in health and life expectancy of the entire population (1). Developing laws and regulations, hygiene, knowledge and enlightenment has been of great importance in this regard. Norway and the world faces however, a global trend of diseases that are often associated with lifestyle, what we eat and drink, in addition to lack of physical activity. Today, cancer, cardiovascular disease, respiratory disease, mental health problems and disorders, musculoskeletal diseases and other pain conditions have the greatest impact on population health (2). Due to increasing life expectancy and thus a population consisting of more elderly people, more people with chronic diseases will also live longer (1). Population ageing is taking place in nearly all the countries of the world (3). Globally, the number of older persons (aged 60 years or over) is expected to more than double, from 841 million people in 2013 to more than 2 billion in 2050. The major causes of disability and health problems in old age are linked to chronic conditions, particularly non-communicable diseases (2). One of the most daunting and potentially costly consequences of longer life expectancies is the increase of people with dementia, especially Alzheimer's disease which contributes to 60-70% of cases of dementia (4). Prevalence of dementia rises with age and an estimated 25-30 percent of people aged 85 or older have dementia (5). Worldwide, around 47 million people is affected by dementia, and by 2030 it is estimated that more that 75 million people will live with dementia and the number is expected to triple by 2050 (2).

The need for health care increases with age, and especially after passing 80 years. An increasing rate of elderly people in the population will therefore impact on the future health care services. 220,000 people, 4.2 percent of the population in Norway, were in 2016 80 years or older and the number is set to increase to 7.4 percent of the population in 2040. Overall, 855,000 people, or 16.4 percent of Norway's population were 65 years old or older in 2016 and this will rise to 22.4 per cent in 2040 (6).

1.2 Norwegian municipal services

According to the Municipal Health Service Act, the Norwegian municipalities provide necessary health care for all who live or temporarily resides in the municipalities. The municipalities responsibilities involves a duty to plan, implement, evaluate and adapt the services in order for the scope and content of the services to be in accordance with requirements laid down by law or regulation. The municipality's health and care services include publicly organised health and care services that do not belong to the state or county municipality. Services may be provided by the municipality itself or by the municipality entering into an agreement with other public or private service providers (7). Municipal services includes among others; health services in the home, practical assistance, safety alarms, food delivery, day activities for people living at home and rehabilitation services such as occupational and physical therapy (6). What in Norway is labelled municipal services, can also be referred to as home health care or community based services, however, in this thesis the term municipal services will be used.

In 2016, there were approximately 140000 employees in Norwegian municipalities, working in health and social services and over 240000 people received health services in the home (8). Demographic projections in Care Plan 2015 (9) indicate that the number of recipients of Norwegian municipal care services is set to rise in the years to come (10). Over the last 20 years there has been an increasing proportion of younger people receiving home care services. In 1994, the proportion of home service recipients under the age of 67 was 18.8 percent and in 2015, 41.8 per cent (10). As mentioned, the group of younger recipients is increasing and has doubled in the past 10 years and surveys (11) shows that they have long term and complex somatic disorders, where neurological conditions prevail, such as MS, Parkinson's disease, epilepsy, stroke, dementia, brain injuries and brain tumours (7). The increasing proportion of younger people is partly due to the shift of responsibility for more patients from the specialist health service to the municipal health service as a result of various government reforms (12). The municipalities have also had a fairly strong growth in the

provision of services to people with developmental disabilities, physical disability, people being discharged from hospitals, but also people with substance problems and mental disorders (10).

The future demographic challenges leads to new tasks for municipal health services, which have been summarized to deal with cooperation, competence, prevention, self-management, treatment, care and rehabilitation. A prerequisite for this is that the municipalities have sufficient personnel with the skills required, and work well both within the municipal sector and with the specialist sector. This requires increased research on municipal services and services that use new knowledge and new technology (7). The Coordination Reform Act (CRA) (12) was initiated in Norwegian health services 01.01.12. The goal of the CRA was for the patient to receive proper treatment, at the right place and right time. The CRA presumes that the municipalities will play the largest part in meeting the growth in demand for health services and that the municipalities should ensure that people receive the most effective health care service (12).

1.2.1 Occupational therapy in Norwegian municipalities

Norwegian OTs work with multiple client groups, in different fields and areas (13), and within municipal service, OT is a central and growing profession as in other parts of the world (14-16). Due to the new responsibilities and the demographic changes, it is estimated that the number of OTs in municipal services should be tripled to meet the health care challenges of the future (17). One of the governmental strategies in this regard has been declaring that OT will become statutory in municipal services from 2020 (18). Another initiative resulting from the demographic changes and the initiation of the CRA, is implementation of reablement services (19, 20). Several Norwegian municipalities have implemented reablement services in recent years and currently about 54% of the municipalities have active reablement teams in their services and many more are in the planning process (21). Reablement has been documented effective for community-dwelling older adults (20, 22) and the process of reablement starts with a thorough assessment of persons' perceived occupational performance challenges, in addition to the persons' needs and wishes for the rehabilitation process (19). In Norway, the Canadian Occupational Performance Measure (COPM) is used in the initial stages of reablement services (19) and this has steered many OTs in municipality care in the direction of using this tool on a regular basis. The tendency of professionals to work side by side instead of together when treating people in the context of municipal care (23) has been challenged by implementation of

reablement services. When working in teams it is important to acknowledge the competences of all team members, and it is suggested that there should be no superior or inferior personnel as everybody has authority related to their professional stance. A consequence of equality and reciprocity when working in multidisciplinary teams, is that nobody has the right to decide what or how others should do their tasks (23).

Despite its prevalence and significance, the practice of Norwegian OTs in the context of municipal care is a little explored area. The reason could be due to the diversity in tasks and responsibilities (13, 24), in addition to the fact that there are not many OT researchers in Norway currently focusing on this area. A master thesis from 1998 (25) described the practice and roles of Norwegian OTs in municipal service and argued the importance of developing the role of the OTs working in municipalities. After 1998, there are however few publications investigating the practice of municipal OTs until recently. Three articles published in the Norwegian OT journal, studied use of assessment tools among Norwegian OTs (26-28) and the results from one of the studies indicated that the OTs from municipal services reported less use of assessment tools and valued their usefulness lower, than those in private or governmental sector (27). A study by Gramstad and Nilsen (29) investigated the challenges municipal OT's experience working with clients and other health care personnel. Results indicated that OTs face challenges related to communication of OT competence and that other`s expectations towards OT did not match the OT's understanding (29). Another study aimed to identify and prioritise relevant research topics, from the perspective of OTs working in Norwegian municipalities. The results indicated that the OTs identified a need for research on, among other topics, how to work with persons with cognitive impairments in the context of municipal service (30).

1.3 Cognition and cognitive impairment

Cognition will in this thesis refer to *an interaction of processes that involve all forms of awareness and knowing such as perceiving, conceiving, remembering, reasoning, judging, imagining and problem solving* (31). Cognition refers to the functions of the mind that result in thought and goal-directed action (32).

Cognitive abilities are thus the skills of perception, learning, memory, understanding, awareness, reasoning, judgement, intuition and language (31). Cognition and cognitive abilities are essential to effective performance across a broad range of daily occupations and plays an integral role in human development and in the ability to learn, retain and use new information in response to changes in everyday life (33).

Cognitive defect is any impairment in knowing, understanding and interpreting reality. For example in recognising and identifying objects or individuals, in remembering, in thinking abstractly, in reasoning and judging or in comprehending and using language (31). A cognitive decline is a reduction in one or more cognitive abilities, such as awareness, memory, judgement or mental acuity across the life span. Cognitive decline is part of a normal healthy ageing, but can also be symptomatic of disease such as aquired brain injuries, dementia or unspecified cognitive impairments (31).

Both OT theory and research support the principle that cognition is essential to performance of everyday tasks (34, 35). Disorders of brain structure or function, inherent or acquired, leads to difficulties in the ways people think, feel and/or act. These difficulties can result in loss of, or difficulties in acquiring or maintaining abilities and skills (36). Cognitive defect and cognitive decline will in this thesis be referred to as cognitive impairment. Through use of occupations and activities, OTs can facilitate individuals cognitive functioning to enhance occupational performance, self-efficacy, participation and perceived quality of life (33).

1.3.1 Information processing theory

Information processing theory is an ecological, inclusive model of cognition that can be used to conceptualize the complex component systems of cognition and understanding how the mind process and stores information (37). Information processing theory can also be used to explain cognitive impairments that are evident during occupational performance (31, 38).

Models of information processing traces the flow of information from initial reception, through several processing points to the final response and monitoring of that response. The

human brain takes in information, stores and relocates it, organises the information by means of various strategies for problem solving and decision making, and generates responses to the information (32). See an illustration of this process in figure 1.

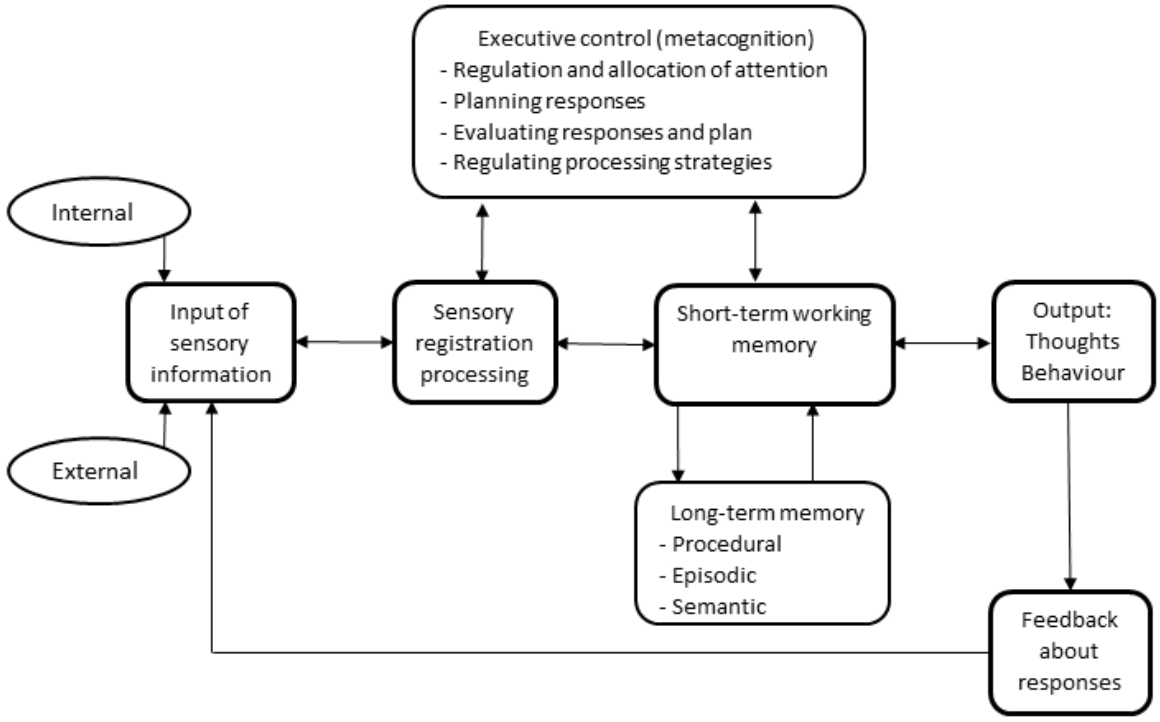

Figure 1: an illustration of a staged flow of information (32)

The capacity to process information in the human brain is surprisingly limited, despite its power and flexibility. Decisions about the importance of information relevant to what is happening and the information's worth, is made at all stages of processing (39). What is processed and the quality of processing throughout the system is controlled by an executive system that monitors and regulates the processes. Information that is not regarded as important is thus discarded (40). The executive system engages corrective strategies when processing is not going smoothly and it evaluates outcomes and decisions (40). This process has been referred to as *metastrategic control*; people's ability to apply thinking strategies that processes new information (41, 42). Metastrategic control supports people in order to manage problems of performance which arise during every day occupational performance. It also

allows people to do what they know, but also to figure out the most effective way to perform under conditions of change (43). The cognitive strategies used during occupational performance are determined by the processing demands of the occupation, the performance context and the processing capacity of the person doing the occupation (32).

Assessment of cognition and the effect of cognition on occupational performance can be considered as a starting point of OT interventions, when working with people with cognitive impairments (36). Assessment has been defined as *the systematic collection, organization and interpretation about a person and his or her situation* (44). There are several ways of obtaining this information from people with cognitive impairments, but the two most common are through neuropsychological and behavioural disciplines (35). Both approaches have important and complementary roles in assessing the nature of the cognitive impairment, remaining capabilities and the challenges likely to be met in the daily life by the person with the cognitive impairment (35).

Several disciplines are involved in assessment of persons with cognitive impairments. Neuropsychologists have a long tradition of performing various desktop assessments but also perform observational assessments in structured environments (35, 45). Nurses often assess persons with cognitive impariments through observation (46), physicians through brief screening assessments (47) and speech therapists through standardised laguage and cognitive tests (48, 49). The role of the OT in assessment of persons with cognitive impairments will be described in the forthcoming section.

1.4 Assessment in occupational therapy

OTs carry out assessments to gather information about people and the occupations in which they choose to engage (50). Assessments provides the knowledge necessary to address peoples' occupational needs (50). Assessments can be categorised as descriptive, evaluative, discriminative or predictive (51, 52). A descriptive assessment can be defined as an assessment that provides information which describes the person's current functional status, problems, needs and/or circumstances (53). Discriminative assessments are developed to distinguish between individuals when no external criterion or gold standard is available for validating measures (54). A predictive assessment is undertaken by OTs to predict the future ability of a person or to predict a specific outcome in the future (55). An evaluative assessment is used to measure change in functions over time and is undertaken to monitor a person's progress during rehabilitation and to determine the effectiveness of interventions (53).

OTs administer assessments that focus on cognition as it relates to participation and occupational performance (33). Through assessments, OTs can evaluate cognitive function as well as get an understanding of how cognitive abilities contribute to and influence occupational performance (36, 56). OTs examine cognition and performance from different perspectives and use a variety of methods during the assessment process, such as interviews, cognitive screening, performance based assessments and specific cognitive measures (52). OTs use the results of assessments to indicate the need for service, design interventions and evaluate results of interventions (52, 57-59). The assessment process is usually described as beginning with an initial screening to decide whether input from an occupational therapist is necessary and beneficial outcomes likely. The screening is then followed by a more detailed assessment with a tool, instrument or systematic interaction with people to inform decision on what to do. The last stage is the evaluation of the outcomes to determine whether the intentions of interventions were achieved (50, 52, 60).

An assessment can be informal where the OT uses a given situation to obtain data, or it can involve using a standardised interview or observation tool (60). Standardised assessments typically involve a process where a person performs specific actions that are graded or rated by the OT according to a predetermined set of criteria. Standardised assessments can be criterion-referenced, where the person is graded in terms of some behavioural standard, or norm-referenced where the person is compared to a group of people who have taken the same measure (60). It is often not practical to perform numerous assessments so therefore it is

important that OTs carefully choose assessment tools when measuring occupational performance (51, 60). Because OTs make judgements affecting the lives of people, they have an ethical responsibility to understand strengths and limitations of the methods and tools used as part of the assessment process (51, 52, 59).

Assessment procedures can be broadly defined by two categories; top-down approaches and bottom-up approaches (61, 62). In top-down approaches, standardised and non-standardised tools are used to obtain information regarding role competency and meaningfulness as the starting point for evaluation. In contrast, a bottom-up approach focuses first on evaluation of specific cognitive and perceptual impairments through standardised and non-standardised assessments (61). Using bottom-up assessments, OTs assess cognitive capacities, such as memory, attention and problem-solving that are believed to be prerequisites to successful occupational performance (63). With top-down assessments, OTs use a broad approach and can assess people by focusing on their roles and whether the person is able to perform occupations, through observation and informal interviews (63).

Aiming towards evidence-based practice (EBP), a valid measurement process is essential in proving effectiveness and efficiency of OT services (57, 58, 64). It is said that OTs treat what is measured, so when concentrating on assessing the details of impairments and inabilities, partial understandings are generated and therefore partial, inadequate interventions are applied (50). In addition, by only focusing on everything that has been lost and all people are not able to do anymore, the assessment process can be distressing and demoralizing for people (50).

Performance based assessments involves observing and documenting what people do. OTs use performance based assessment both during direct observation of a person performing specific daily occupations, as well as when a person performs a standardised test with performance items such as speed or accuracy (52, 64). By using principles from information processing theory, OTs can structure their observations of how people use their cognitive strategies related to performance of everyday occupations and plan intervention to enhance occupational performance (32).

1.4.1 Historical perspective on assessment in OT

Since the earliest time in OT history, OTs have valued enabling persons to engage in occupations that are important to them within their everyday lives (65, 66). However, during the 1950s and 1960s, as the mechanistic era gained favour, the early values were displaced as

OTs began to focus their treatment on body functions and structures, rather than enabling engagement in occupations (50, 67). At that time, assessments focused on identifying and measuring changes in impairment or performance components, rather than the impact these components had on occupational performance (67). With '*the renaissance of occupation'*(68) from the 1980s, with occupational science being introduced, top-down measures emphasizing occupations people engage in, OTs were encouraged to use assessments focusing on occupational performance (50). However, the shift has not been complete, as in many practice settings, OTs are still today in conflict between the core values of the profession and the demands of other professionals and managers, which require OTs to remain focused on addressing the impairments of individuals (69). Historically, occupational therapists have used non-standardised assessments, especially unstructured interviews and observations, or used standardised assessments with modifications to suit the different clinical environments (57). A common challenge has been to take different parts of standardised tests or individual test items and integrate these into a "therapist-constructed" assessment battery (57). However, once the standard procedure for test administration and scoring has been changed, there is no longer any guarantee of the reliability and validity of the assessment results (57, 63).

1.4.2 Current perspectives on assessments OTs use

Several research studies have investigated OT's pattern of practice in relation to assessment of persons with cognitive impairments (26-28, 56, 70-88). Observation and conversations, formally named unstructured interviews (50), has been identified as two of the most frequently used methods for OTs to gather information on people's occupational performance during the assessment process (72, 75-77, 79-81, 87).

Interviews

Interviews serve many purposes, such as establishing the basis of the relationship between the person and the OT, gaining background information and identifying the most effective methods of communication. Through the interview the OT can start to determine peoples' resources and limitations, their goals and expectations and the OT's role in realizing these (89). An interview is usually chosen by OTs as the initial method of data collection and is very useful for collecting self-report data (52). Conducting interviews is documented as a frequently used method among OTs when assessing person's occupational performance (28, 56, 71, 74, 76, 79-81, 84). There are several assessments available for OTs to use when

interviewing people, but one of the most frequently used in international studies is the COPM (90). The COPM explores in detail a person's occupational history, values and concerns related to performance of daily occupations (90). The COPM requires a certain level of functioning for the person to engage in it, such as communication skills, attention, concentration, memory, a certain level of fatigue resistance and a realistic appreciation of his own capacity and performance (89). While an assessment such as the COPM can be useful, it is not advisable to introduce them before the person's ability to cope with it has been determined (89). When interviewing people with cognitive impairments, OTs are advised to be aware that cognitive impairments related to insight, might affect the validity of results, regardless of which method or tool is used (52, 90). It is therefore recommended to compare self-reported data through interviews with observations, standardised test results and proxy report (50).

Observation

Observation is a vital part of the assessment process and OTs constantly observe people for various reasons (50). Several studies report that observation is a frequently used tool among OTs in clinical practice (56, 70, 71, 74-76, 79-81, 83). Via observation, OTs investigate peoples' resources and limitations, and use the results to select the most appropriate occupations for interventions (91-93). Competence on how to conduct observations, is however very important in order to assure reliability of the results, otherwise OTs run the risk of missing important information or being critiqued for using an unscientific approach to assessment (93). Related to cognition, the goal of observation is to identify whether people are able to process required information for a particular occupation in a particular context (94). Through observations OTs obtain information on whether people are able to perform their occupations, in addition to physical and cognitive abilities interfering with their performance (95). As there is rarely a correspondence between component skills and occupational skills, observation of occupational performance is important in order to get an accurate picture of peoples' resources and limitations (35, 54, 95) related to cognitive abilities.

Observational techniques can be divided into two categories; naturalistic observation (unstructured observation) and structured observation (95). In naturalistic, or unstructured, observations, the OT develops an understanding of a person's natural occupational repertoire through assessing habitual performance rather than best performance in a structured

environment (35). Naturalistic observations can be conducted as informal initial observations or as more comprehensive observations in a naturalistic environment (89) and is said to produce more valid assessment results than structured observations in structured environments (45). Structured observations most of the time takes place in structured environments where factors in the context can be controlled by the OT, like in institutional training kitchens (96). Structured observations have however been critiqued for removing people from their routines and environments (97) in addition to only produce information on performance in one single evaluation point (45, 97). Observations in naturalistic environment can be done using ecologically valid assessments, which aims to mimic real-life behaviours in test situations (35). In an ecological assessment OTs observe people performing occupations in the context where the occupation normally occurs (98). Central to the assessment is not what the person is capable of rather what they do on a daily basis (99). When people are admitted into institutions, most observation based assessments, are done in clinical settings due to costs and time requirements related to travel to peoples' homes. However, performance in clinical environments is not always equivalent with performance in well-known environments, such as the home (64, 100). In most cases, clinic performance overestimate home performance, likely due to the clinic environments with wide hallways, smooth floors and low countertops. When doing observations, it is emphasised that OTs should be aware of the distinction between occupational analysis and activity analysis (91, 92, 96, 101). Where an occupational analysis systematically analyses what and how a person performs an occupation, an activity analysis refers to considering a more general idea of how things are usually done (96). OTs have also been warned to not let their judgements be based on their particular values in occupational performance, which may not be shared by the person being assessed (102). Conducting observations at home is therefore more ecologically valid for performance based assessments. At home the OT is able to observe how people interact with their own well-known objects in the environment where the occupations usually takes place (100). Access to known objects in known places is said to influence fluency in performance (64, 103), and OTs are therefore encouraged to perform observations in environments where people are well-known (96, 97).

Standardised assessment tools

In addition to observation and informal interviews, standardised assessment are also frequently used by OTs to assess persons with cognitive impairments (56, 70-72, 74-83, 86, 87). A range of standardised assessment tools is available for OTs in clinical practice and

they can also be categorised as top-down or bottom-up assessments (104). The most frequently used top-down standardised assessment tool reported in international studies, is the Assessment of Motor and Process Skills (AMPS) (105) (28, 56, 70, 72, 74, 75, 77, 79, 80, 82, 86). The three most well-known standardised occupation based assessment tools for OTs in Norway are the AMPS, Perceive, Recall, Plan and Perform system assessment (PRPP) (106) and the Arnadottir Occupational Neurobehavioral Evaluation (A-ONE) (28, 107). They are all standardised observation based assessments, with well documented research on psychometric properties (108-114). They are developed overseas, respectively in the USA, Australia and on Iceland and the language of the assessments is English. In order to be able to use them, OTs need to take part in a five day training course, and due to the new terminology and way of sorting the observed behaviours, there is a need to spend some time implementing them when OTs go back to their practice after completing the courses. Implementing new methods in practice is time consuming, not only within OT but regardless of professions (115), thus it is vital to be aware of that when signing up for courses, especially extensive courses like AMPS, PRPP and A-ONE.

The bottom-up standardised assessments frequently mentioned in international studies are the Mini Mental State Examination (MMSE) (116), (28, 71, 74-77, 81, 86), Neurobehavioral Cognitive Status Examination (Cognistat) (117), (70, 75, 77, 79, 86), Loewenstein Occupational Therapy Cognitive Assessment (LOTCA) (118), (72, 75, 79, 81) and Rivermead Behavioural Memory Test (119), (28, 71, 74, 76, 79). In addition, some standardised assessments seem to be more used in certain geographical areas than others. In North- America, the Allen Cognitive Level Screening (120) (72, 78), the Cognitive Competence Test (CCT) (121) (71, 77) and the Cognitive Assessment Scale for the elderly (122) (71, 77) are frequently used. In Oceania, the Australia Therapy Outcome Measure (AusTOM) (123) (79) and the Assessment of Living Skills and Resources (75, 124) are frequently used tools. In Scandinavia, the Cognitive Test 50 (CT-50) (125) (80), is a tool frequently used by Danish, Swedish, and Norwegian OTs when assessing persons with cognitive impairments.

Obtaining valid and reliable assessment results have been reported as a reason for using standardised assessments (56, 76), in addition to indicating which interventions to initiate (56, 71, 73, 76). Assessments that are quick and easy to administer are valued as an important factor when choosing what assessments to use (56, 71, 73, 76, 79-81), as well as knowledge of, familiarity with and accessibility of assessments (56, 71, 73, 76, 81).

That tools are not specific enough (57, 76), that the results are difficult to link to occupational performance (56, 76), time constraints and heavy workloads are reasons for not using standardised assessments (56, 57, 71, 73, 76, 79-81). Limited knowledge of how to use assessment tools and of how to interpret assessment results as well (56, 71, 73, 76, 81). Although systematic training increases reliability and validity of scoring, it has been reported that a limitation for using standardised assessments is due to the significant training time and costs related to it (52, 69, 71, 89). Often the measurement tools are experienced as lengthy to administer which makes it impractical in busy practice settings (57, 126), or costly as they should be administered by raters that are highly trained (127). Although standardised assessments, when used appropriately, bring confidence in validity and reliability, non-standardised assessments are an important source of information gathering during the OT process (51).

It is said that there is a need for OTs to implement occupation-based assessments in practice (128-131), however, workplace expectations and limited power to influence practice, has been experienced to hinder OTs from addressing occupation in practice (132, 133). Within the profession there is even an indecision on whether the core concern of OTs are occupation or whether it is about something else, such as developing skills (134, 135) or filling gaps other professions do not attend to (134). It is reported that OTs have historically been accepting, non-assertive and have not wanted to rock the boat and this might weaken their ability to create change (12). OTs are in addition not always comfortable addressing power dimension within relationships, rather they prefer to be 'happy, smiling conformists, preferably offending no one' (136). A challenge has also been that OT as a profession is frequently unrecognised and not fully understood by recipients and other health professionals (29, 132, 137). Consequently, OTs have for a long time, been challenged to market (138, 139) and better explain OT and how it can be of service to society (140, 141) as lack of appropriate representation and promotion of the profession can have serious implications for OT (137).

1.5 Theoretical frame of reference

The theoretical frame of reference for this thesis is inspired by occupational science (142, 143). Within occupational science, humans are regarded as occupational beings (77, 78) and enabling engagement in human occupation is the core of OT (144). In the OT profession, there has been a struggle for several decades to define occupation and to promote the centrality of the concept in OT (143, 145, 146). One of the earliest definitions was in 1991 posed by Clark et al as t*he ordinary and familiar things that people do every day* (p.300) (147). In 1997 Law et al. (148) proposed that occupation refers to *groups of activities and tasks of everyday life, named, organized and given value and meaning by individuals and a culture. Occupation is everything people do to occupy themselves, including looking after themselves (self-care), enjoying life (leisure) and contributing to the social and economic fabric of their communities (productivity)* (p.34). In 2001, Pierce made an effort to 'untangle' the concepts of occupation and activity (145). The primary distinction between the terms were that occupation is the subjective experience of an individual, with meaning that is personally constructed. Activity was said to be a culturally defined class of human actions, shared in the minds and cultural language of people (145).

Occupation is more than activities and tasks (149) and can currently be defined as *a subjective event in perceived temporal, spatial and sociocultural conditions that are unique to that one-time occurrence* (150). Occupations have a clear beginning and end, a shared or solitary aspect and a cultural meaning to the person (150). An activity, on the other hand, can currently be defined as *an idea held in the minds of people and in their shared cultural language. An activity is not experienced by a specific person, it is not observable as an occurrence, and it is not located in a fully existent temporal, spatial and sociocultural context* (150). Activities are culturally defined, and enables communication about generalised categories of occupations in a broad way (150). The World Federation of Occupational Therapists', WFOT, has however a shorter definition of occupation, as it refers to *the things that people do in their everyday lives* (151).

A movement has emerged within OT that calls for broadening of definitions of occupation beyond the individual view to also reflect interdependency and community (152, 153). In this thesis, however, an individual perspective on occupation is applied as it refers to the OTs experiences of assessing individuals OP.

Many definitions of occupation focuses heavily on occupation as *'doing'* (154). In 1998, however, Wilcock described occupation as the 'synthesis of doing, being and becoming' (155). Who we are as human beings and who we are becoming contributes to the fluency of our lives. *Being* and *becoming* are part of human life stories as they are lived and emanate from the everyday doing of life (154). In 2004, Hammel suggested that occupation should be understood through reference to the meanings people attribute to their occupations, and not solely in terms of doing, being and becoming, but also in terms of *belonging* (156). Understanding the meanings and experiences of occupations, as individuals perceive them is important knowledge for OTs (150). As occupations are culturally situated, what people choose to do are influenced by many factors other than personal need or choices (157). Skill levels, resource availability, socioeconomic constraints and political contexts are all factors said to influence what people choose to do in their everyday lives (157). With the proposition of including *belonging* to Wilcock's tripartite formulations of doing, being and becoming; belonging was absorbed into her work in 2006 (158).

Currently, the terms *doing, being, belonging* and *becoming* is presented as a way of illustrating some of the complexities influencing peoples' choices (157) and has been used to describe meanings people ascribe to the various occupations in which they engage (159-161). In this thesis, the author strived to understand the meanings and experiences of the participants' practices of performing OT assessments in the context of municipal services through the framework of *doing, being, belonging* and *becoming*.

Doing is linked with getting something done, carrying out, making, executing, performing, completing, organizing and undertaking. There are countless variations in what people do, according to where they live, feelings about what they do, individual, family and regional interests, capacities and talents, learned skills, education, time availability or pressures, issues of personal or social control and the norms expected by colleagues or societies in particular places (157). *Doing* in this thesis will illustrate the participant's occupation of doing assessments with people in the municipalities.

The doing components of human repertoire are dependent on regular time for stillness and reflection and this quiet time is described as *being* (157). *Being* is described as the essential nature of someone, their substance, core, inner person and is the time when people reflect on their range of occupations, including that which is obligatory, self-chosen, paid or unpaid, as well as the social and political influences. The quiet time is when the meaning of what people

do can be thought through and ideas are formed, and a sense is made of how to go about doing what needs to be done (157). The participants in these studies were OTs working in municipal services and expressed thoughts and meanings related to what are their core and their competences. In the interviews they reflected on various aspects of their practices that were influencing their occupation of doing assessments.

People are social beings and throughout history, they have lived in familial, communal, and larger social groups to meet the necessary and chosen occupations in life. *Belonging* can be associated with feeling acceptance of self, security, happiness in relationships, as well as within the organisations and community in which people actively participate (157). The participants belonged in their municipalities and their relationships with their colleagues influenced the choices they made related to assessment of people with cognitive impairments.

Individuals and communities become different through what they do day by day. *Becoming* is linked with the idea of undergoing change, transformation, with development and becoming more knowledgeable (157). In these studies, the participants talked explicitly about both their wishes and what they described as needs for development of general municipal services, as well as development of their own competences related to assessment of persons with cognitive impairments.

This thesis is constructed around three studies investigating the practice of Norwegian OTs in municipal service. In individual and focus group interviews OTs described their practices and various factors influencing the choices they made. The terms *doing, being, belonging* and *becoming* will in the discussion section of the thesis be used to structure how the participants described and reflected upon their practices assessing persons with cognitive impairments.

2.0 Aim of the thesis

The overall aim of this thesis was to investigate methods used by Norwegian municipal OT when assessing persons with cognitive impairments.

Specific research questions for study I were:

- Which methods do OTs use?
- Which standardised assessment tools do OTs use?
- What are the reasons for their choices?
- Is there any association between the use of certain methods and standardised assessment tools and OT's graduating year or work setting?

The aim of study II were:

- To investigate and describe OTs' experiences working with assessment of persons with cognitive impairments

The aim of study III were:

- To investigate and describe how OTs in focus groups talk about doing observation when assessing persons with cognitive impairments

3.0 Method

3.1 Design

Both quantitative and qualitative methods were applied to investigate, gain understanding and generate knowledge on the practice of Norwegian OTs in order to reach the aims of the thesis (162). An overview of the design, participants, methods of data collection and data analysis in the three studies, is presented in Table 1.

An explanatory combined method was used (162), starting with an initial quantitative study. The results of the quantitative study was further elaborated on, by qualitative data through individual interviews in study II and focus group interviews in study III.

Study	Design	Participants	Methods of data collection	Methods of data analysis
I	Quantitative Descriptive	497 OTs working in municipal services	Questionnaire survey	Descriptive statistics Logistic regression
II	Qualitative Explorative Descriptive	14 OTs working in municipal services	Individual interviews using an interview guide	Inductive thematic analysis
III	Qualitative Explorative Descriptive	19 OTs working in municipal services, allocated in 6 focus groups	Focus group interviews using an interview guide	Abductive thematic analysis

Table 1: overview of design, participants, methods of data collection and analysis in study I, II and III

3.2 Participants

The author collaborated with the Norwegian occupational therapy organisation, Ergoterapeutene, when distributing the invitation for participation in the studies to members of the organisation. Two data processing agreements (appendices 1 and 2) were written emphasizing how the data being collected was to be stored and used. As the researchers did not have access to personal information, such as names or email addresses to the members, Ergoterapeutene distributed the invitation to study I, II and III to ensure anonymity of the participants. The initial invitation to study I was distributed by email to 1,367 OTs registered in the organisation's database whose workplace was in municipal services at the time of participant recruitment. Numbers from the national statistical agency indicated that at the time of data collection there were 1,998 OTs working in Norwegian municipalities, so the organisation's database covered approximately 68% of the OTs working in Norwegian municipalities at that time (163). All OTs participated on a voluntary basis; agreeing to participate by entering the link in the initial invitation email which led them to the online survey.

The questionnaire was distributed through EasyFact TM (164), and Ergoterapeutene had access to identify whom of the 1367 OTs who received the invitation, had finished the questionnaire. The authors wished to invite the participants from study I to participate in interviews to be able to investigate their experiences with assessment of persons with cognitive impairments. Thus, four hundred and ninety-seven OTs who participated in study I received an invitation, also this time from Ergoterapeutene, to participate in interviews to investigate their experiences working with assessment of persons with cognitive impairments. If they agreed to participate they were asked to enter the link in the email in order to leave their contact details and the researcher would contact them.

A flow chart of the participants illustrating the three studies is presented in figure 1.

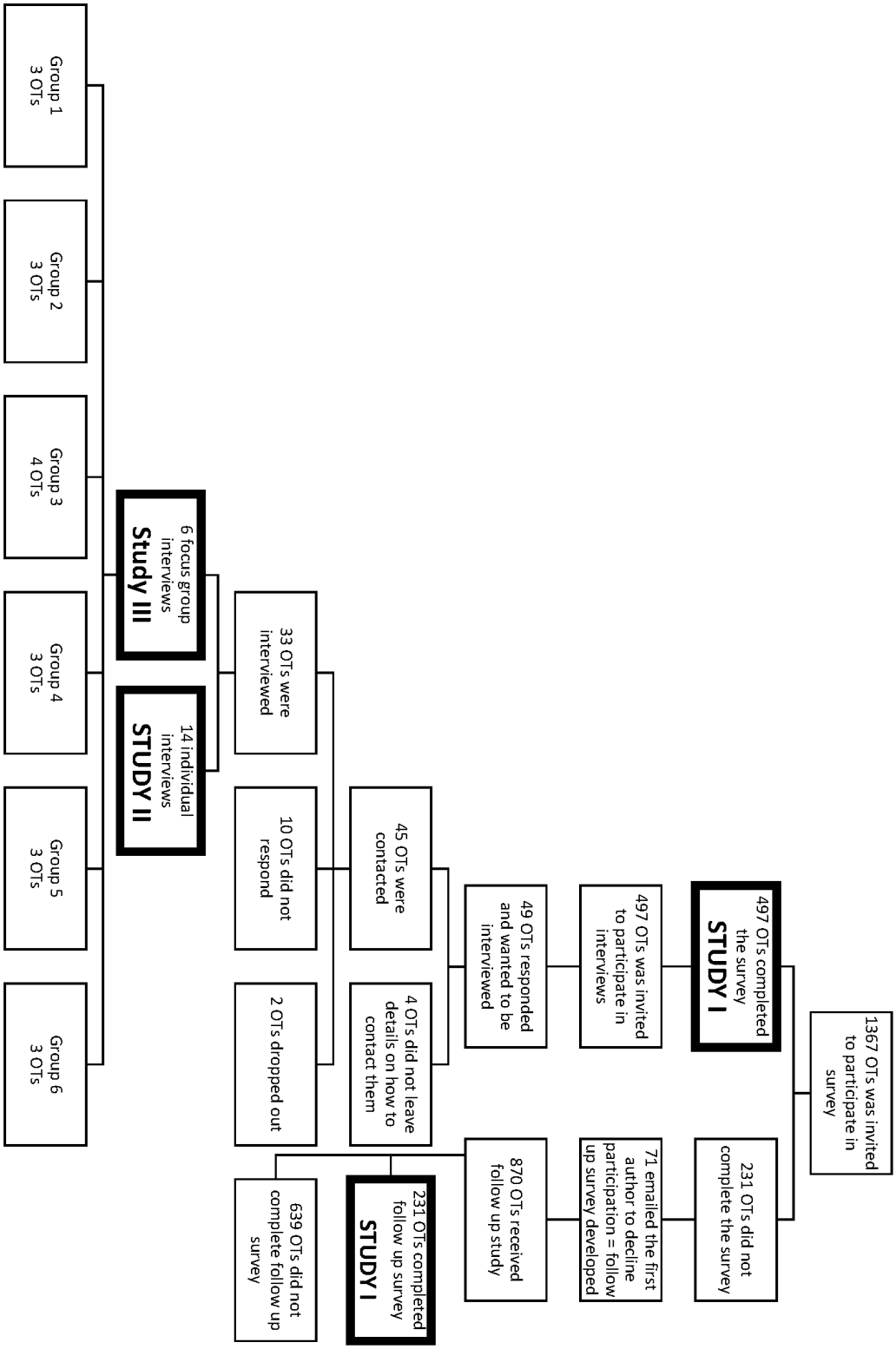

Figure 1: Flow chart of the participants in study I, II and III

3.3 Quantitative data collection study I

3.3.1 Data collection study I

An online self-administered questionnaire was developed for study I, using EasyFact TM (164). It contained three subsections about: (i) participants` demographic characteristics and (ii) assessment of persons with cognitive impairments and (iii) interventions for persons with cognitive impairments. Study I was built around sections (i) and (ii). The questionnaire consisted of 22 questions and twelve questions were multiple-choice, five questions had two options and five questions were open-ended. The multiple choice questions all had an option labelled "other, please specify". It was estimated that the questionnaire would take 6-8 minutes to complete. The questionnaire was piloted prior to data collection to ensure face validity (165). All OTs participated on a voluntary basis; agreeing to participate by entering the link in the invitation email. After the questionnaire was distributed, 71 OTs emailed the first author to decline participation for various reasons and this prompted some curiosity about the rest of the dropouts. A follow-up survey was developed based on the reasons stated, and distributed to 880 OTs who did not participate in order to investigate their reasons for declining participation in the study. Seven months after the deadline of the original questionnaire, the follow-up survey was distributed. The invitation for participation and the questionnaire was in Norwegian and is attached in appendix 3.

3.3.2 Participants' characteristics study I

497 of 1367 OTs who received the invitation to participate, completed the questionnaire. Related to gender, ninety-four percent of the participants in study I were female and six percent were male. With regard to work setting, most of the participants worked with people living at home (93%). Many of the participants worked with people in institutions (55%) and many with people living at home as well as with people in institutions (45%). Working with people living at home and with people living in institutions was the most common combination of work settings among the participants in study I. In addition, 10% worked in administration, 5% only with people in institutions and 4% worked in municipal competence services. The participants' descriptive characteristics are presented in table 2.

3.4 Qualitative data collection study II and III

A qualitative descriptive design, as described by Sandelowski (166) was employed in study II and III to provide description of the OTs' experiences working with persons with cognitive

impairments in the municipalities. The qualitative descriptive design draws on naturalistic enquiry (166) and fits within an interpretive paradigm (167). The author of the thesis were striving for understanding the participants in their practices and their everyday experiences related to persons with cognitive impairments. Semi-structured interviews were conducted using an interview guide (106) to collect data for study II and III. As this was the first study investigating the practice of municipal OTs, the interview guide was based on broad and open questions to facilitate descriptions of the participants' experiences. All interviews were conducted in Norwegian, by the author who is an OT experienced in working with rehabilitation of people with cognitive impairments as well as with municipal health services. The invitation for participating in interviews and the interview guide was in Norwegian and is attached in appendix 4 and 5.

In accordance with the qualitative framework, the researcher's positioning was of great importance in the process of gathering and analysing the material (107). The researcher's activity was influenced by having two roles; the researcher and the interviewer. During the interviews, there were ongoing dialogues between the researcher and the participants, which opened up interpretative and communicative processes, comprising both acting upon and reflecting in action (108). The author strove to understand how the OTs talked about their practice in the municipalities, which required her to talk and act in an open-minded way.

The participants were asked to describe their experiences by answering questions on topics such as peoples' diagnosis, their experiences with assessment of persons with cognitive impairments, specific assessment tools, collaboration with other professionals related to assessment, and experienced challenges, limitations and benefits in their practices assessing persons with cognitive impairments. Probing questions for clarification, showing understanding, extending the narrative and accuracy (106) were used throughout the interviews to ensure understanding of the statements. In the focus group interviews, the participants were encouraged to comment on each other's statements and engaging in discussions throughout the interviews

The individual interviews lasted 46-90 minutes and all but two, took place in a closed room in each participant's working facility. The last two took place in a library and at a train station, by the choice of the participants. All interviews were audio-taped and transcribed verbatim by the first author.

The focus group interviews lasted 78 to 97 minutes and four interviews took place in a closed room in one of the participants in each group's working facility. The last two took place in closed rooms in hired locations, centred strategically according to geographical distances to the participants' working facilities. All interviews were audio-taped and transcribed verbatim. In addition to the participants and the moderator, an observer was present in the focus group interviews. The role of the observer was to take notes on the group dynamic, the body language and symbolic meanings exchanged among group members (168). After each interviews the moderator and observer shared impressions of topics addressed in the interviews and the notes from the observer were used during the analysis of the material.

3.4.1 Participants' characteristics study II

All participants in study II had in common that they worked with persons with cognitive impairments. In regards to work setting, all participants worked in municipal practice; however, they had different responsibilities in their daily work. Six of the participants worked with persons living in their own homes, performing as they said themselves, *traditional* OT services focusing on home modification and assistive technological solutions. Five of the participants worked in teams' specifically targeting people with dementia, emphasizing diagnosing dementia and initiating appropriate interventions. Three participants worked with municipal rehabilitation, one in homebased rehabilitation and two in municipal institutions where either people lived for a short time or they lived at home and came to the institution several days a week for rehabilitation. The participants' descriptive characteristics are presented in table 2.

3.4.2 Participants' characteristics study III

All participants in study III had in common that they worked with persons with cognitive impairments. In regards to work setting, all participants worked in municipal practice; however, they had different responsibilities in their daily work. Thirteen participants worked with persons living in their own homes, performing as they said themselves 'traditional' OT services focusing on home modification and assistive technological solutions. One participant worked as a coordinator of the dementia team in her municipality, emphasizing diagnosing dementia and initiating appropriate interventions. Five participants worked with municipal rehabilitation. Three in homebased rehabilitation and two in municipal institutions where either people lived for a short time or they lived at home and came to the institution several days a week for rehabilitation. In addition to their role performing *traditional* OT services, eight participants worked in teams specifically targeting people with dementia, and six

participants worked in home based rehabilitation. The participants' descriptive characteristics are presented in table 2.

As all the participants in the focus groups were female OTs working in municipal service, the groups were homogenous (169, 170) related to work setting and gender. In addition, the researchers chose to base the composition of the groups on geography, making it as convenient as possible for the participants related to travel to participate. Due to the geographical considerations, the number of participants in each focus group became somewhat smaller than has been recommended when performing focus group interviews (170). However, the interaction among the participants were of priority rather than the number of participants (169, 170).

Study	**Gender**	**No**	**%**	**Educ. year**	**No**	**%**	**Health region**	**No**	**%**
I	Female	467	94	2000-2013	208	41.9	South- East	252	50.7
				1990-1999	168	33.8	West	121	24.3
	Male	30	6	1980-1989	67	13.5	Middle	70	14.1
				1971-1979	54	10.9	North	54	10.9
				Median 2002					
II	Female	14	100	2000-2011	2	14.3	South- East	10	71.4
				1990-1999	5	35.7	West	2	14.3
	Male	0	0	1980-1989	6	50	Middle	0	0
				1971-1979	1	7	North	2	14.3
				Median 1990					
III	Female	19	100	2000-2011	4	21.1	South- East	12	63.1
				1990-1999	4	21.1	West	4	21.1
	Male	0	0	1980-1989	9	47.3	Middle	3	15.8
				1979-1979	2	10.5	North	0	0
				Median 1987					

Table 2: Participants' demographic characteristics study I, II and III

3.5 Data Analysis

3.5.1 Quantitative data analysis study I

Frequencies and percentages were used to describe the categorical data. The multiple-choice questions were analysed with each possible answer treated as separate variables. Logistic regression (171) was used to estimate the association between (i) the participants' work setting and use of different methods for assessing persons with cognitive impairment, (ii) education year and use of different methods for assessing persons with cognitive impairment, (iii) the participant's work setting and use of specific standardised assessment tools.

The open-ended questions and the option *other, please specify* were analysed using content analysis, aiming to quantify the responses (162). The responses to the open-ended question regarding education year, were grouped together in 5-year intervals in SPSS, as the responses were numerical. The responses to the open-ended alternative for the question regarding what standardised assessment tools they used were categorised and counted, according to the name of the assessments the participants mentioned. The responses on the open-ended alternative on questions related to reasons for using and not using standardised assessments were also analysed through content analysis aiming to find similarities between the respondents. The responses for the follow-up survey were analysed by calculating the relative frequencies.

3.5.2 Qualitative data analysis

3.5.2.1 Data analysis study II

The analysis for study II was conducted according to Stanley's (172) description of thematic analysis. The analysis was inductive in nature emphasizing the statements from the participants when analysing the data. Three researchers read the transcribed texts several times independently, to get familiar with the data and to get an overall view of topics of which the participants were concerned. Text condensation and line by line coding was thereafter employed to build codes inductively, where after the codes were grouped together to reach consensus among the researchers. The next step entailed lifting the analysis on a more conceptual level and trustworthiness was strengthened by engaging in a reflective process and by discussing themes as they arose among the authors. During the process of analysis, the transcribed interviews were kept in Norwegian.

In order to keep a sense of coherence with the participants' statements, the authors chose to stay close to the participants' own words when determining the final stage of the analysis,

naming the themes; the power of occupation, advantages and disadvantages of assessments used and a need for competencies within municipal services.

After the themes were determined, both themes and the respective quotations were translated into English by a professional translation bureau. As the bureau did not have the full context of the interviews, some of the translated quotations went through refinement by the authors in order to be rightfully represented.

Table 3 illustrates an example of the analytical process going from the statements, condensed statements, grouping of codes in order to finally reach the themes.

Original statement	**Condensed statements**	**Codes**	**Theme**
I am very concerned with activity, that is what`s the core of the profession. So that kind of desktop stuff, it can be useful, but that is not what's important in peoples' lives.	Activity is the core of the profession. Desktop stuff does not play a big role in peoples' lives.	Activity is the core and what`s important in peoples' lives.	The power of occupation
I think we should have something that could more detailed identified what`s the problem, where the shortcomings are.	Need a tool that can identify what is the problem.	Lacking a tool	A need for competencies within municipal services
It is about the results you get in the end, because OTs are very good at picking a little bit here and a little bit there and putting it together as our own.	OTs are good at picking here and there and putting together as our own.	Picking from here and there.	Advantages and disadvantages of assessments used

Table 3: Example of analysis from statements to final themes in study II

3.5.2.2 Data analysis study III

The analysis for study III was also conducted according to Stanley's (172) description of thematic analysis, and started by using an inductive explorative approach (168, 173). Three researchers read the transcribed texts several times independently, to get familiar with the

data and to get an overall view of topics in which the participants were concerned. Observation early arose as a theme broadly discussed in the six focus group interviews, as well as comments from the observers highlighted observation as raising engagement in the discussions. Therefore, the researchers came to a consensus to continue further analysis by focusing on how the participants talked about and used observation in their practices. The author of the thesis went through the transcribed texts and exerted the sections where observation was the topic of conversation. Text condensation and line by line coding was employed to build codes inductively, to explore the citations in detail. The codes were thereafter grouped together and the three researchers discussed the coding and came to a consensus on the following three main themes; doing observations, the meaning of context when doing observations and competence when doing observations.

The analysis continued through a deductive approach, by using a conceptual framework related to occupational science and themes related to addressing *doing, being, belonging* and *becoming* were revealed. This way of combining inductive and deductive approaches is named a dynamic abduction approach and is a form of reasoning used in situations of uncertainty and unpredictable conversational world of human beings (168, 173).

During the process of analysis, the transcribed interviews were kept in Norwegian. After the themes were determined, both themes and the respective quotations were translated into English by the researchers.

3.6 Ethics

The Norwegian Centre for Research Data (NSD) approved the study prior to data collection, see appendix 6. The authors followed the ethical principles for medical research in the Helsinki Declaration, throughout the process of work with this thesis. The Norwegian occupational therapy association, Ergoterapeutene, distributed an email with the invitation for participation to members in their database to ensure anonymity of the participants. Participation was voluntary and by clicking on the link attached in the invitations the participants agreed to participate. Personal data collected was stored on a password protected external hard drive until the interviews were conducted and transcribed.

4.0 Main results

4.1 Study I

The results in study I are based on responses from 497 OTs who completed the initial survey. The results are divided in three parts; methods for assessing persons with cognitive impairments, standardised assessment tools used and reasons for using and not using standardised assessment tools.

4.1.1 Methods for assessing persons with cognitive impairments

The most frequently used methods for assessing persons with cognitive impairments were informal interviews (91 %), observations (91 %) and standardised assessment tools (73 %). Logistic regression indicated that the group graduating after 1995 was more likely to use observation as a method than those graduating before 1996 (OR= 1. 64).

4.1.2 Standardised assessment tools used

The participants reported in total a use of 44 different assessments tools. The most frequently used standardised assessment tools were the CDT (60 %) and MMSE (59 %). Logistic regression indicated that the participants working with people living in municipal institutions used the Clock Drawing test and the MMSE more often than the participants working only with people living in their own homes (OR= 1.72 and OR = 1.55 respectively). Logistic regression also indicated that the participants who used either MMSE or the Clock Drawing test were likely to have considered using the other of these two tests. Hence, it was more common to use the two tests in combination, than one of them by itself (OR = 1.64).

4.1.3 Reasons for using and not using standardised assessment tools

The most common reasons for using standardised assessment tools were to get a better foundation for initiating interventions (74 %), to get more reliable results (64 %) and to measure the effect of their interventions (47 %). The most common reasons for not using standardised assessment tools were that the participants did not have the competence to do so (49 %), they did not have access to materials (40 %) and that there was a lack of time (30 %) to do so.

4.2 Study II

Three main themes arose from the analysis of the data in study II. These were; the power of occupation, advantages and disadvantages of assessments used and a need for competencies in municipal services.

4.2.1 The power of occupation

The participants highlighted occupation as the core of OT and stressed the importance of enabling people to participate in occupations as it influences people's health and wellbeing. They were mainly using unstructured observations of occupational performance; however, some were also using standardised observational assessments. The participants underlined the importance of using the home environment during the assessment process as they had experienced that performance could vary greatly from an unknown to a well-known environment.

4.2.2 Advantages and disadvantages of assessments used

Several participants highlighted that there were major limitations in many of the desktop assessments they used, leading to the need to add more information to the results. Some said that often they wrote more in the margins than in the actual assessment forms. They talked about how they did many observations, but in most cases they were unstructured observations. Some participants emphasised however, that by using standardised assessment tools the results became more structured, clear and trustworthy and that they had something more concrete to work with, than when only using desktop screening assessments.

4.2.3 A need for competencies in municipal services

The participants said that there was need for development of competence on how to work with persons with cognitive impairments, but it was challenging as persons with cognitive impairments was only one of many areas in which they had to provide services. They said they specifically lacked a standardised tool that could systematically illustrate the impact the cognitive impairment had on peoples' lives; that could guide where and how to initiate the appropriate interventions, in addition to document the effect of their interventions. The participants described struggling with limited resources and how that made them torn between what they knew would benefit the profession in the long run and surviving their caseloads on a daily basis.

4.3 Study III

The analysis of the interviews from study III revealed three themes; doing observations, the meaning of context when doing observations and competence when doing observations.

4.3.1 Doing observations

The participants said that observation was their preferred method to use when they assessed persons with cognitive impairments. During the assessment process, the participants said they valued using occupations which were well-known to the person, and that the people were motivated to perform. The participants described using observations in several ways. The first way was random observations related to what they saw when going on home visits and walking around in peoples' homes. Another way was when the person and OT had chosen a specific occupation together, such as dressing or making breakfast and the person performed the occupation and the OT stood back and quietly observed the performance. However, the observations they described doing, were mainly unstructured observations.

4.3.2 The meaning of context when doing observations

The participants said they valued doing observations in the naturalistic context familiar to people since that was where the occupations normally took place. They talked about how the occupational performance in many cases were more fluent and automatic when in the context of their own homes. So when they were asked to do assessment in order to evaluate whether persons would be able to keep living at home, they found it unfair to make decisions based on results of occupational performance in unknown environments.

4.3.3 Competence when doing observation

The participants said that observation was one of OTs' core competences and that with experience they had become skilled in doing observations of people performing daily occupations. Some participants also used standardised observational assessments when doing observations and some reported that after AMPS training, they became better and more conscious when doing observations. Although the participants perceived their observational skills as good, several participants said that they wished to be more structured when doing observations and when reporting the results of the observations.

5.0 Discussion

The aim of this thesis was to investigate Norwegian municipal OT practice related to assessment of persons with cognitive impairment. The results from study II and III illustrated that the practice of the participants was experienced as multifaceted and challenging. They described working under several conflicts on a daily basis which influenced the choices they made in their practices. The terms *doing, being, belonging* and *becoming* have been suggested as a way of illustrating some of the complexities influencing peoples' choices in relation to what they do (157) and will in the forthcoming section be used as a framework to illustrate and discuss the assessment practices of the participants in the studies. The discussion will consequently be structured in (I) the challenge of *doing* assessments, (II) *being* OTs in municipal service, (III) *belonging* in a multidisciplinary setting and (IX) a need and a wish of *becoming* more competent when doing assessments.

5.1 The challenge of doing assessments

The results of study I indicated that the participants' preferred methods for assessment were observation, informal interviews and standardised assessment tools. The participants in study II and III said that their preferred method for assessment was observations, which also have been reported in previous studies (24, 56, 71, 74-79, 81). The participants reported and described how they used observation in several ways. One way was when they had agreed upon an occupation to be done, and the OT was standing in the background observing a person performing specific occupations. Another way was described as more random observations performed in several situations such as when sitting down and talking to persons, when performing standardised desktop assessments or as they were showing them around in their homes. Random observations they described could be being in a person's kitchen and noticing a burned dinner from the day before still standing on the oven or noticing how the house looked in regards to clutter, dirt or even smell.

These statements raises important ethical questions as well as questions related to how the results of such observations are used. What if the person have a history of burning their dinner or their houses often have clutter and dust in them. The decision on what is acceptable behaviour related to how the home appears when doing observations on a home visit, should be contemplated. Are OTs trained to the degree that distinguishing their own opinions and attitudes for what is 'normal' appearance of a home is possible? Or should the concept of 'normal' be avoided when talking about occupation based analysis where the emphasis is on

person's own way of doing occupations and experiencing meaning (92, 101, 174)? One of several assumptions informing OT practice is a sense of 'rightness' and the beneficence of certain goals (174). Do OTs value certain goals as more important than others when treating persons with challenges with occupational performance?

In study II the participants emphasised how the question 'what is meaningful to you' is one of the first questions they ask people they assess. So perhaps cleaning the house is not experienced as meaningful for a person? Will it be accepted by the OT in relation to assessment in the home environment, and furthermore, how can it be secured that the OTs attitudes will not influence the judgement on the person's occupational performance? Hammel argued that OTs have failed to contest the assumption that 'normality' is an appropriate goal and have created their own 'norms' that constitute favoured forms of appearances. These 'norms' are important to acknowledge are not universal (174) and might lead to people being judged unfairly based on assumptions rather than performance challenges due to cognitive impairments. Once OTs pass the threshold of people's home, how much of what they observe should be reported and should some of their observations be kept private due to respecting the integrity of the individual? Autonomy and confidentiality related to respect for the rights and privacy of people is important throughout the OT process (51) and when doing observations, perhaps what is observed and recorded should be related to what the referral emphasised (175)?

The participants in study I said that a reason for not doing standardised assessments were that they did not have time, and in study II and III they emphasised how time restrictions and waiting lists were influencing how much time they had to allocate to people, as have been previously reported in research (25, 29). Related to how the participants in study II and III talked about the importance of the occupational performance perspective, in cases where the OTs only have the opportunity to meet persons on one or two occasions, it seems important to make well use of the time. Thus doing an unstructured observation of person's occupational performance rather than performing a desk-top screening assessment seems preferable. However, whether it, for a trained OT, necessarily takes more time doing standardised occupation based assessment is something that should be contemplated and investigated.

Although unstructured observations were preferred, the results of study I indicated that valid and reliable occupation based assessments, such as the AMPS (105), PRPP (106) and A-ONE

(107), were used, although to a limited extent. Some participants in study II and III talked about their experiences using the AMPS and the PRPP. They talked about how using these standardised observational assessments made the results more structured and how the results could guide interventions in a more obvious way than results from desk-top assessment. On the other hand, several participants found the standardised observational assessments difficult to use, as they perceived the frames as too rigid to be suitable to use in the context of their practices. The participants in study II and III talked about how they wanted to become more competent and structured in their work, but at the same time they continued to use the desk-top assessment tools and unstructured observations. The conflict of what they do and what they said they wanted to do illustrates an ambiguity. They said that they wanted to become more structured when doing observations but at the same time, they chose not to use standardised observational assessments. What was hindering them from doing so? Participating in AMPS and PRPP training courses is both costly and time consuming and it has also been reported that these factors hinders OTs from participating in such courses (71, 127). Therefore, it is especially interesting that the participants who had the opportunity to participate in these courses, had chosen not to use them more than what they reported doing in the interviews.

The Sunnaas kitchen observation (176), however, was in study I reported as the third most frequently used standardised assessment tools among the participants, with one in five participants indicating that they used it. The Sunnaas kitchen observation was developed in Norway, at Sunnaas Rehabilitation Hospital in the 1980s. The language is Norwegian, and there are low costs and time requirements in order to learn how to use it. Studies have emphasised that costs and time requirements are factors that could hinder implementation of new assessment tools for OTs in clinical practice (56, 57, 71, 73, 76, 79, 81, 127, 168). Subsequently, important reasons why so many participants in study I chose to use it could be its availability for OTs without cost or need for training and that the language is well known, compared to other occupation based standardised assessments.

Some participants expressed that doing standardised observational assessment is easier in surroundings where the environment can be controlled. So the question on whether or not certain standardised observation-based assessments are feasible in community practice, where time limitations are evident and the environment is not easily controlled, should be investigated. On the other hand, the validity of doing observations of occupational performance in controlled environments has been questioned (45, 97) so maybe the issue

should rather be to develop standardised assessment tools which can be used in uncontrolled environments? The participants talked about how they used unstructured observations and they talked about standardised occupation based assessments as structured observations. However, related to observations, is it possible to distinctly differentiate an unstructured observation from a structured one? Or do OTs sometimes move back and forth on the scale from structured to unstructured observations? Structured observations most of the time takes place in structured environments, where factors in the context can be controlled by OTs, like training kitchens (96). Does that mean that OTs working in the context of peoples' homes, where they are not able to control the environment, by definition only can do unstructured observations? Maybe it is time to introduce another level into the observation discourse; a semi structured observation of occupational performance. A standardised observational assessment tool suitable to be used in uncontrolled environments, such as the context of peoples' homes? One participant in study II said that she kept the activity/occupation analysis in her 'backbone' when doing observations. Could moving the activity/occupation analysis from the backbone and to a piece of paper in front of her be the first step in achieving the goal of doing more structured or semi-structured observations?

Although occupation based standardised assessments were used to a limited degree, the participants reported using several standardised assessments when assessing persons with cognitive impairments. In study I they reported in total a use of 44 different standardised assessments tools, whereas the most frequently used were the CDT (177) and the MMSE (116). The participants claimed that the occupational performance perspective was important but still they chose to mainly use desktop assessments, such as the MMSE and the CDT. They talked about how the perceived limited usefulness of desktop assessment made them 'clutter on the side'. Do OTs feel they have to do so because the assessments will not give them the information they need? If so, why do they continue to use those assessments, when they have the perception that the results are insufficient and that they have to add to the assessment results?

Due to the perceived limited usefulness, the participants chose to gather more information from observations in addition to what they reported responding to the referrals they had received. The disjunction between what the OTs do and what they report they do has been labelled 'underground practice (8). In one way, the desktop assessments seemed to be an alibi for the participants. 'Yes, we use standardised assessments, and they are…' and this could be linked to the previous paradigm, emphasizing changes in impairment level (10-13). However,

could adding a standardised observational assessment in their practices contribute to the OTs perception of what is essential in the assessment process? Would they still feel the need to use the desktop assessments to the same degree? The MMSE and CDT are not OT specific assessment tools, rather they are developed by neuropsychologists for assessing educated people (178), therefore it is rather interesting that so many OTs feel ownership to it and are choosing to use it in their practices (28, 70, 71, 74-77, 79-81, 86).

Seventy-two per cent of the participants in study I said that they used standardised assessment tools in order to get a better foundation for initiating interventions, and this has been documented both in the literature (57, 58) and in previous research (56, 71, 73, 76) as reasons to why use standardised assessment tools. In these studies it was not investigated which interventions the participants initiated, however it could be interesting in a future study to investigate their experiences on which interventions they consider applicable to initiate based on results from discriminative (52) assessment tools such as the MMSE and the CDT.

It was indicated by 64% of the participants in study I that they used standardised assessments in order to obtain more reliable results, and this is in line with implementation of evidence-based practice where OTs are encouraged to use more standardised assessments in their practices in order to be able to trust the results of the assessments (36, 57, 179). However, participants in study II and III questioned what they actually could use the results for, as they in most cases were more interested in how the persons performed their everyday occupations.

Almost 50% of the participants in study I said that a reason for using standardised assessment was to measure the effect of their interventions. When looking at the most frequently used standardised assessments, MMSE and the CDT, they have been developed in order to identify impairments rather than describe occupational performance or make predictions on a performance level (116, 177). They are thus neither predicative nor evaluative (52) tools that can say anything about a persons' abilities to perform occupations of everyday life.

Just like in previous studies (14), several participants in study II commented on the fact that going through various desktop assessments can be experienced as quite stressful for people. To be 'exposed to' the assessments, as several participants call it, might lead to pressure to perform and the stress might negatively affect the results. It has been documented that the assessment process might be an emotional endeavour for people (9, 14), and feelings such as shame, irritation, pride and relief have been described (14). In addition, OTs have experienced increased difficulty engaging people in assessments that were not specific to OT,

and greater success when using occupation-based assessments (9). As the participants in study II and III highlighted experiences where people were negatively influenced by feelings of stress in the assessment process, it could be interesting to evaluate whether greater use of assessments of occupational performance could relieve some of those feelings, leading to more engagement in the assessment process, and thus produce more valid and reliable assessment results?

5.2 Being OTs in municipal service

The participants in study II and III highlighted how enabling occupation is the core of OT and that evaluating occupational performance is important when assessing the effect of cognitive impairments on everyday life. Enabling occupational performance is the foundation that OT is built on (140, 180). In study III, the participants underlined that observation of occupational performance was also one of OTs' core competencies and the participants preferred to use occupations that persons valued as meaningful, since they had experienced that performing meaningful occupations led to people being more motivated to participate in assessments.

As mentioned*, Being* is said to be the essential nature of someone, their substance, core, inner person and is also the time when people reflect on their occupations (157). Being an OT in municipal service seems to be a multifaceted role. Gramstad & Nilsen (29) reported that municipal OTs faced challenges related to communicating their competence to others and that others' expectations to OT does not match their own understanding. Tuntland (25) found already in 1998 that OTs often work alone in the municipalities and that they do not get to use the range of their competence due to others' expectations of OTs' responsibilities (25). Having the opportunity to take a step back and review own practices through critical thinking, have been emphasised as crucial for professional development (25, 181, 182). It is said that critical thinking is essential to inform evidence driven, socially relevant and culturally safe OT practices (182, 183). Critical is, however, not considered the same as criticism but rather it refers to an intellectually engaged process of seeking to evaluate the qualities of various claims or evidence, as well as to appraise the ideological and structural contexts in which these claims or evidence is derived (182). Through the interviews, the participants were invited to critically reflect on their practices in a way they said they did not have the opportunity to prioritise in their daily practices. Being a critical OT practitioner is the process OTs undergo when they consider a multitude of information, including published

research data and their reflections on practice, in order to develop effective and relevant strategies for people (62, 182).

So, through the interviews, the participants questioned and reflected on various factors influencing their assessment practices. One factor they reflected on was the validity of observation results when observations were done in environments where persons being assessed were not familiar, such as in institutional training kitchens. Previous research has documented that well known environments have a positive impact on occupational performance (64, 184, 185), especially related to persons with cognitive impairments (99). It has been documented that results of assessments done in clinics have been used to predict function in the home environment (184). However, it seems unfair to make decisions based on people's performance in unknown environments when the results may be used to make judgements related to where persons should live (184, 186). Unfamiliar furniture and equipment might distract a person when performing an occupation in unfamiliar environments (64). The interaction between a person and the environment is dynamic and changes in environment, affects how people reacts as well (64). Dunn emphasised how human performance changes when clothes and accessories are arranged differently than how it normally looks in known environments (64, 103). As a result, the participants preferred doing observations which were well known for persons.

In addition to reflecting on factors related to assessing people with cognitive impairments, several participants in study II and III commented on how they appreciated the opportunity to reflect on and share practice experiences during the interviews. A total of twelve of thirty-three participants in study II and III, worked as the only OT in their municipality and expressed that participating in the interviews had been valuable as it had given them the opportunity to sit down, take a step back and reflect on their practices and share their experiences. Critical thinking require willingness to identify, examine, and challenge assumptions and their underlying ideologies (182). The participants were asked questions related to their practices, that aimed to contest the taken-for-granted knowledge that is assumed to be, or that is presented as "true" related to their practices (182). Twenty-six percent of the participants in study I said that a reason for not using standardised assessments were that there was not a tradition for it at their workplaces. Even though it was not in the aims of this thesis to investigate the participants' opportunities for critical thinking in their practices, it was promising that so many participants in study II and III spontaneously commented on the value of having the opportunity to do so, with the interviewer. Although, it

illustrated how this was something they missed having the opportunity to in their daily work. Through self-reflection, consideration of research evidence and the outcome of consultation with others, OTs can become critical thinkers and practitioners and are able to provide a clear, considered rationale for the strategies used (62). Thus, through these reflections, there might be an opening among the participants for critical thinking in order to generate fresh perspectives, and stimulate innovative, socially just practices (183) in order to meet the expected health challenges in the municipalities in the years to come. It is said that without critical thinking, people become unconsciously integrated into an existing system, inevitably conforming to the ideas and practices that maintain the status quo (187). So it seems as even though the participants themselves wished to do something else, they had conformed into the already established practices in their workplaces, including living up to several peoples' expectations on what their responsibilities as OTs were. In order to develop the profession, it is however, said that it is important to challenge beliefs and assumptions that has dominated and still do dominate the OT profession, as well as not being willing to accept unquestioningly what the 'powerful' say (181). So it seems important to encourage municipal OTs to make practice decisions based on their own critical reflections on what is suitable, rather than conforming into the expectations claiming their practice should continue the way it has *always* been. Especially considering the future challenges the municipal services are facing.

5.3 Belonging in a multidisciplinary setting

Several participants in study II and III reflected on how they did various assessments due to the expectations from *everybody*, such as doctors, case managers, colleagues, caretakers and this have also been previously reported as influencing OT practices (25, 29). Specifically, the participants who worked as the only OT in the municipality said that they felt they had to do everything others expected. People are social beings and throughout history, they have lived and worked in social groups to meet the necessary and chosen occupations in life. *Belonging* can be associated with feeling acceptance of self, happiness in relationships, as well as within the organisations and communities in which people actively participate (157). The participants felt a sense of belonging to their workplaces and tried to find their place in the organisations in where they worked. So when their colleagues had a different view on the professions responsibilities as they themselves had, it inevitable caused a conflict. This challenge has also been identified among Norwegian OTs in municipal service through previous research (25, 29). It is however, said that OTs need to be mindful in preventing non-

OT personnel dictating what should be included in OT evaluation and intervention planning (60).

The participants were torn in regards to whether they should stand up and argue in cases where they did not agree with what the referrals asked them to do, or whether they should just keep quiet and do it. The OT profession has for several decades proclaimed itself to be client- or person-centred (148). It is said that OTs need to reflect on the impact of their power as OTs, due to its impact on persons abilities to express their values and their goals (182). Law (188) challenged OTs to *give up power*, however, client- or person-centred practice is concerned with realigning power between OTs and persons in need of services (182). OTs have historically been accepting, non-assertive and have not wanted to *rock the boat* of their institutional environments (189), and this might weaken their ability to create change (190). It is documented that OTs are not comfortable addressing power dimension within relationships, rather they prefer to be *happy, smiling conformists, preferably offending no one* (136). However, being powerful does not necessarily mean being offensive or dominant, as there are different types of power and more than one way to achieve it (191). Getting comfortable with the idea of being powerful begins with the realization that power is neither inherently good nor bad. It is rather the use of power in terms of good or bad, that ultimately determines how it will be perceived (190). So it is quite interesting how, working with persons with various occupational challenges, OTs perceive themselves in a position to transfer or realign power (182, 188), however, when it comes to collaboration with other professionals, they are not comfortable seizing power and standing up to 'everybody's' expectations for themselves. Hammel said that *''empowered people have freedom of choice and action'* (192), so how can it be secured that also implies for OTs? How can they gain freedom to choose the most appropriate assessment and interventions for people without others dictating them what to do? It is said that discussing issues such as power and gender can be a tricky task in a highly female profession such as occupational therapy (193). Already in the 80ies it was highlighted how the OT profession was predominantly female and thus accepted its submissive position and role, thus perpetuating its own problems (194). The studies in this thesis underlines how OT practice in Norwegian municipalities is still dominated by women, as ninety four percent in study I and one hundred percent of the participants in study II and III, were female.

In addition to accepting referrals without arguing on them, it is said that OTs also take responsibility of doing the tasks that nobody else sees as their responsibility and this has been

labelled as ‘gap-filling’ (56). Why is it that the OTs feel compelled to do that? Has the OT profession traditionally not been good enough to market itself (57, 58) as there are still so many expectations on what the responsibilities of OT are? The participants in study II reflected on wanting to do their best for people but at the same time, they did not want to cause trouble for themselves with their colleagues by not doing what others expected of them. Mattingly and Fleming (27) described how OTs expressed concern about how a treatment activity might appear; whether the treatment would be seen as ‘professional’ enough in the eyes of their colleagues (27). So, are OTs still facing the dilemma where working with everyday occupations are not considered ‘scientific’ enough and could that be a reason for not standing up to all the expectations and emphasizing an occupational performance perspective? Several participants in study II commented that there was a misconception among their colleagues of OT competence, as have been previously reported among Norwegian municipal OTs (25, 29). However, whose responsibility is it to correct that misconception? Through emphasizing what lies within the frames of the education, the foundation of the profession and the power of occupation (59, 60), OTs could inform and educate their colleagues if they lack the proper understanding of OT. Could it be that the reason that other people still, to a certain degree, define what an OT should do is because the OTs themselves do not, as previously argued by Gooder (195)?

5.4 A need and a wish of becoming more competent when doing assessments

The participants in study I indicated that a reason for not using standardised assessments were due to lack of knowledge on how to use standardised assessments as well as no access to materials. The participants in study II and III talked about a need for development of competence in municipal service, both related to their OT competence on assessment, but also related to interventions for people with cognitive impairments in general. The participants in study III said that they perceived their observational skills as good, however, they wished to be able to better structure their observations in order for the results of the observations not to be based on assumptions. OTs need to demonstrate that occupation based observational assessments can be just as scientific as results from desktop assessments (126) and many participants said that they wanted to engage in professional development related to implementing more structured occupation based tools. *Becoming* is linked with the idea of undergoing change, transformation, with development and becoming more knowledgeable (157). One of the aims in the CRA is development of competence in municipality services

(12) and related to persons with cognitive impairments the participants wished to be able to provide services with more structure than they at current said they did. Developing a sense of self-worth or confidence is associated with development of competence (190) and through practice, hard work and taking risks one can discover ones full capacities (190, 196). By taking part in professional development the participants could reach their aims of increasing their competence on assessing persons with cognitive impairments, and perhaps free themselves from reliance on the approval of others (190). Knowledge can be linked to the concept of power and expert power is one of five sources of power within organisations, that was identified more than 50 years ago, by social scientists French and Raven (193). Expert power is power based on knowledge a person has that others may not (193), for instance for OTs, the knowledge of linking cognitive problems to execution of everyday occupations through using certain occupation based standardised assessment. Related to the discussion in the last section on how the participants accepted and complied towards other's definition of OT responsibility, maybe increased competence could assist OTs in becoming more assertive related to their identity, hence leading them to feel and become more powerful?

Research has indicated that within powerful professions, practitioners experience more job satisfaction, are less likely to burn out, and produce better patient outcomes (197-200). On the other hand, practice decisions in a powerless profession, are said to be controlled by others, and that practitioners are unable to exercise their full potential and comprehensively utilise their skills and training (201). Some participants in study II said that the time had come to stop and say no, when they did not agree with what the referrals asked them to do and, as one participant said, 'dare to do more' than what they traditionally had done in municipal services. To stop, reflect and chose to do otherwise was, however, also reported in a study by Tuntland already in 1998 (25). Hammel claimed that there has been a lack of critical reflection within OT concerning the power, dominance to expert status and the impact of the power they have, related to working with persons with occupational challenges (202). By working client- or person-centred, this aspect is to a certain degree, on the agenda in municipal services, illustrated by how the participants referred to asking persons 'what is meaningful to you'. However, perhaps OTs should be encouraged to critically reflect on how to use the power them, by definition, themselves have and apply it in relation to collaboration with among other, colleagues?

Due to the demographic changes in the Norwegian population, governmental documents emphasize a need for development of municipal services (12, 15). The participants in study II

said that as a result of the CRA (12), they had received new responsibilities but not the tools nor competence to deal with them, and this seemed to have led to some frustrations and stress. Looking at the new governmental guidelines, emphasizing new responsibilities in the municipalities, in addition to the fact that OT will be statutory in municipalities from 2020 (18), it invites questioning whether it is time for OTs to go beyond what their role has traditionally entailed in the municipalities, which the participants referred to as focusing on home modification and assistive technological solutions. Melton and Creek (191) claimed that OTs need to seize power so they can bring about changes in policy and service delivery to serve people better and meet society's occupational needs. This can be achieved by making alliances with people in power; politicians, the media and leaders within health and social care services (203). Much like what Ergoterapeutene has been doing in the recent years by making sure municipal OT is set on the national political agenda, thus leading to among others; the fact that OT will be statutory in municipal services by 2020 (18).

Several participants in study II and III said they wished to move forward to a more evidence based practice, thus implementation of more standardised occupation based assessment tools are essential (57, 58, 179). In addition, more emphasis on marketing OT, as has been proposed for a long time (138, 139), might be long overdue, especially in the municipalities, where the conception of OT in many cases equals assistive technology (25, 29). It is observed that the more powerful ones beliefs and assumptions become and the greater the longevity, the harder it is to contest them (204). Looking at the studies investigating the practices of Norwegian OTs in municipal services, there are similarities among the challenges perceived 20 years ago (25) and the challenges perceived by participants in recent studies (29) and this thesis. Subsequently, it seems important to take initiatives to avoid that studies on municipal OT service in 20 years from now, report similar challenges. Several participants reported that engaging in professional development was challenging, as they were the only OT in their municipalities, thus spending time specialising within one field, was impossible. Not having someone to discuss with and engage in development with, was also mentioned as challenging related to development of their competence. Maybe initiatives to establish networks for OTs working in neighbouring municipalities to join in development could be a strategy in order to reach that goal?

The work of health professions is however, not static and practices change over time. To remain powerful, OTs need to defend and expand their practice domains—and counteract efforts made by other professions to exclude them from new practice areas or seize those they

currently dominate (205). It is important that OTs are specific regarding their distinctive contribution, what do they bring to the table that nobody else can do, in order to stand firm in the future health care climate. In order to do so, becoming comfortable with power, understanding the various aspects of power and analyse OTs' individual positions in the workplace are key (190). It is however said that great opportunities lie in times of change (139) and as Hammel has said; *Our profession **is** important, and our future **can** be bright!(183).* Therefore, with the changing demography and the new governmental propositions, it will be interesting to see how the OT profession can seize these opportunities in order for the practice of OTs in municipality services to develop and flourish in the years to come.

6.0 Strengths and limitations

The aim of this study was to investigate Norwegian municipal OT practice related to assessment of persons with cognitive impairment. To reach the aim of investigating, gaining understanding and generating knowledge of the practice of the OTs, both quantitative and qualitative methods were used. By using different methods a deeper understanding of the topic was produced, than by using one method alone (162). As this was the first study investigating the practice of municipal OTs related to assessment of persons with cognitive impairments, it seemed appropriate to start with a survey and get an impression of the practice from a large group of OTs, representing the whole country. The results from the questionnaire was thereafter used to guide the interview questions for the individual and focus group interviews (173). In hindsight, this could have been done the other way. Starting with interviews could have helped target the questions in the survey to obtain more focused material.

By using different methods, the opportunity to obtain deeper knowledge and become skilful in one method was lost. However, as the work with a PhD thesis is considered a learning process, it was found appropriate to use both quantitative and qualitative methods for data gathering and analysis.

Ergoterapeutene distributed the invitation for participation in the studies to the members registered in their database and this led to many OTs receiving the invitations. Four hundred and ninety seven OTs participated in study I but as there were 1,998 OTs in Norwegian municipalities at the time of data collection, this study does not reflect the entirety of opinions on the topic.

The OTs received the invitation by email including an introductory text with a link to the survey. The topic of interest in this thesis was related to assessment of persons with cognitive impairments in Norwegian municipalities and the introductory text for both the quantitative and qualitative studies emphasised this. The OTs who responded and chose to participate, might have been more engaged in it than other municipal OTs, however, that was also the aim; to reach those that are engaged in the topic and get an understanding of the challenges they dealt with related to assessments of persons with cognitive impairments.

The invitation to participate in individual and focus group interviews was sent to the 497 OTs who participated in the initial quantitative study in order to investigate their experiences and obtain a deeper understanding of the results of the study I had produced. Doing so allowed

the participants to elaborate on the results from the survey, which was the aim. However, by sending the invitation only to those who took part in the initial survey limited the sample and maybe there are OTs who weren't reached who could have positively added information to the data.

When using a questionnaire for data collection as was done in study I, the use of closed questions enabled the possibility of drawing conclusions from a large group of participants (48). However, there is a possibility that the answer options may not have reflected the precise meanings of the OTs (48), even though they chose to use the predetermined answer options. In order to minimise these disadvantages, the participants in study I had the opportunity to choose several alternatives for answering the different questions, in addition to having the opportunity for a final alternative labelled 'other, please specify'. In spite of this, the participants might not have used that option and thus their precise meanings might not have been identified.

The questionnaire which was used in study I, was made by the researchers, which is not recommended when doing surveys (162). In hindsight, the researchers could have benefitted from spending more time investigating previous studies on similar topics in order to perhaps identify existing questionnaires which could have been used. If there will be a follow up study in the future, it should be reflected on whether it would be wise to do so. On the other hand, if the aim is to compare results from a follow up study with results from this study it would be sensible to at least use the same questions as was asked in study I.

The sample in both the quantitative and the qualitative studies, were representative in regards to sex, graduating year and health regions. However, only 36 % completed the survey and another 17 % completed the follow-up study in study I. That means that the practice of 47 % of the OTs in municipalities, at the time of data gathering, is still unknown.

Related to study II and III, all participants worked in municipal service, although they had somewhat differing work settings. The participants in study II and III had different roles; some worked specifically with people with dementia, some worked with rehabilitation services and some worked with people living in their own homes, performing as they said themselves, 'traditional' OT services focusing on home modification and assistive technological solutions. Thus, the participants represented multiple responsibilities they had in municipal services, representing their multifaceted roles, as have previously been reported (25, 29) among municipal OTs.

There is a majority of female OTs in Norway and as participation in these studies was voluntary, the gender distribution was not possible to influence. The participants represented small, medium and large municipalities. Study II and III had a qualitative design and even though the aim was not to generalise and state how all OTs in municipal service in Norway are working, rather to investigate and get deeper understandings of the 33 OTs' experiences of their practices. It is, however, likely that other OTs might be able to relate and recognise some of the experiences from their own practices, due to the sample represented in these studies.

Related to transferability of the results, the authors have been striving for being transparent by describing the process of analysis in all three studies in detail (162, 173).

The author of this thesis is an OT with extensive experience working with persons with cognitive impairments, mainly within specialised rehabilitation. She also has experience working in municipal care, and this influenced the choice of topic for the study. When talking to the participants in study II and III, having that experience made the interviews free flowing and natural, however, information might have been lost, due to implicit understanding between the interviewee and interviewer (173). During analysis and discussion of the results in the studies, the second and third author continuously made valuable contributions in order to not let the pre-understandings (173) of the first author guide the analysis and results in the studies.

Data for study III was collected through focus group interviews, with three or four participants in each group. The participants in this study shared their experiences and reflected and discussed on each other's statements during the interview (162). It can however, be fragile with only three participants in a group interview, as you never know whether all the participants will engage in the discussions. On the other hand, having few participants could inspire the participants to take a more active part in the interviews as they would not have to "fight" for the word (173).

7.0 Implications for practice

The results of this study invites OTs to reflect and create awareness of their choices when doing assessments in addition to which values and attitudes are implicitly influencing their practices.

The methods preferred by the participants in the studies were observations, informal interviews and standardised assessment tools. The standardised top-down occupation based assessment tools were not generally used, indicating that most of the observations done were unstructured observations. This and previous research have identified that observation is one of the most used methods for assessing people in OTs' practices. It is however noteworthy, that despite its frequent use, observation is not taught extensively in OT education in Norway as it is in other disciplines, and maybe that should be reconsidered by the educational institutions? As several professions, besides OT, use observation for assessing people with cognitive impairments (45, 46, 97) it seems pivotal for OTs to be able to identify what is their explicit contribution in that regard.

In study I, the participants reported that they mainly worked with people with progressive neurological diseases and stroke, and the most frequently used standardised assessment tools used were the CDT and the MMSE, which are recommended for use in dementia care rather than in neurology. Whether they are in fact used for people with neurological conditions, such as stroke and progressive neurological diseases, is unclear based on these results and should be a topic for future research. OTs in municipalities needs to critically reflect upon the tools they choose to use and the limitations they entail. Knowledge regarding for what and who the tools are developed, in addition to for what the results can be used are essential to contemplate.

Based on the results of this thesis, OTs need to implement more standardised occupation based assessments tools in order to work in line with EBP. Working evidence based is not compatible with *cluttering* in the margins of standardised desktop assessments they report using. Which standardised assessment tools that are applicable and feasible in the context of municipal service should however be evaluated together with practicing OTs. Related to EBP and clinical reasoning, critical thinking is said to be an important component (206) so having a forum to do so in clinical practice seems essential.

There is a tendency of OTs in municipalities to be viewed as generalists rather than specialist (25, 29), and this influences and to a certain degree limits the OTs' opportunities for gaining

experience and competence working with persons with cognitive impairments. To be able to specialise within some fields seems to be a wish among several participants in this thesis as well as among OTs in municipality services (25). For OTs working as the only OT in a municipality this can be challenging, but for municipalities with several OTs, it might be beneficial and necessary to do so. Several OTs experience challenges working alone in various municipalities (25, 29), therefore networks should be established to enable discussions and joint collaborations related to development of competence and perhaps also research among municipal OTs.

Many participants said that they wish and need to develop their competence on working with people with cognitive impairments. Arranging courses and further education targeting municipal OTs seems important and necessary. OsloMet- Oslo Metropolitan University has for several years had a 10 ECTS program for OTs in general health. This program is however, situated in Oslo, requiring OTs to travel to participate in classes there. It could be interesting to evaluate whether greater use of technology and online teaching methods could make it easier accessible for municipal OTs from more remote areas of the country to participate in this and possible other programs and courses.

8.0 Recommendations for future research

The results of this thesis indicate that the practice of municipal OTs is both multifaceted and conflicted. This is a start of studying and generating knowledge on OT municipal practices, however there are several important aspects to further investigate in order to understand the practice of OTs in municipal service more thoroughly than what was achieved in this thesis.

Due to the complexity of municipal OTs' practices, strategies to develop to work more in line with EBP should be implemented using participatory action research (207). Municipal OTs themselves know what possibilities and limitations lies in the context of their practices and are therefore vital in order to implement new methods for assessment as well as interventions.

The practices of the participants in this thesis is multifaceted and can also be understood as ambiguous. The participants stated that the occupation based perspective is the core of OT and they emphasised that many persons with cognitive impairments are more motivated and less stressed when performing daily occupations rather that participating in standardised desktop assessments. An exploration into why OTs continue to use impairment based desktop assessments to such a degree as reported in these studies could be an important aspect to investigate.

The results of the thesis illustrates that observation is a frequently used method for OTs during the assessment process to gather information on various aspects related to persons with cognitive impairments. It is of importance to further investigate in what way OTs use observations as well as for what the different observation results are used. It could also be of importance to investigate what is the distinctive contribution of OT's observation compared to other professionals who also use observations for assessment and treatment purposes.

Theory highlights that occupational performance varies from well-known to unknown environments, however, there is a lack of research actually documenting this difference. It could be interesting to do research where performance is measured with a standardised occupation based assessment tool to investigate in what degree performance differs in different contexts, such as in institutional environments and persons naturalistic environments in their homes.

The results indicate that standardised occupation based assessment tools such as AMPS, PRPP and A-ONE are used by OTs in municipal services, although to a limited extent. Study II, as well as previous research (56, 71, 73, 76, 79-81) suggests that time limitations and rigid frames of assessments can be some of the reasons why that is. It could however be interesting

to further investigate why OTs, who have had the opportunity to go for training, choose not to use them more. Whether, and in what way, these assessments are feasible in municipal care could also be investigated.

The results indicate that OTs perform various tasks related to both assessment and intervention based on other professionals expectations, as also have been documented in previous research (25, 29). It seems vital to investigate why OTs continue to do so. Will participating in projects or further education among municipal OTs give them confidence to not only stand up to all these expectations but also to seize the occupational performance perspective? Initiatives to market OT could be investigated to see whether it can lead to OTs being able to use more of their competences and perhaps thus not feeling them being limited on only focusing on assistive technology.

In order to reach the aim of becoming more structured when doing observations and reporting the results of observations, development and trial of a semi structured occupation based assessment tool, applicable for OTs in municipalities when assessing people with cognitive impairments should be performed.

9.0 Conclusion

The overall conclusions of this thesis indicate that there are some challenges related to the participants' practices of assessing persons with cognitive impairments. They are working under several conflicts on a daily basis. They have to make choices that are influenced by not only what they view as beneficial for people but also what is feasible in their practices. They value the importance of being occupation based, but when it comes to the assessment process they choose to keep using the impairment based screening tools, although they are very critical to the usefulness of the results. They expressed a need to engage in professional development, however, they found it difficult as they perceived their daily workloads to be hindering them from doing so.

These studies also document that OTs prefer to do unstructured observations, and it does have its place within the profession, especially in the initial stages of the collaboration, when little is known about the person's level of performance. However, the challenge is if the results of unstructured observations remain the baseline of people's level of performance, as there is no guarantee on the reliability or validity of the results. The researcher's ambition is not to encourage OTs to move away from doing unstructured observations, rather create awareness related to what the OTs do and for what the results of assessments can and should be used.

The OTs experienced a lack of power to make decisions based on their competence, instead they did several assessments at the request of other professionals, who did not have insight into OTs' competences. Already 20 years ago, in 1998, it was reported that municipal OTs wanted to get their profession more known, gain recognition and a higher status in addition to use more of their competences (25). Therefore it seems vital to implement strategies in order to prevent that, in 20 years from now, studies report the same findings as what the results of these studies are indicating.

This thesis suggests that more use of occupation based standardised assessment tools are needed in order for the OTs in municipal practice to work in line with evidence based practice. However, due to the complexity of their practices, development and implementation of more evidence based practice should be done through action research methods, where both OTs, developers and researcher participate on equal grounds (207).

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ORIGINAL ARTICLE

Assessment of clients with cognitive impairments: A survey of Norwegian occupational therapists in municipal practice

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ABSTRACT

Background: With the Coordination Reform Act initiated in 2012, Norwegian occupational therapists in municipal practice have been given responsibilities concerning clients with cognitive impairments. With emphasis on supporting best practice, the aim was to investigate the practice of Norwegian municipal occupational therapists (OTs) in their assessment of clients with cognitive impairments.

Method: An online questionnaire was used to collect data from 497 of 1367 OTs in Norwegian municipalities (RR = 36%)

Results: The most frequently used methods were informal interviews (91%), observations (91%) and standardized assessments (73%). The most frequently used standardized assessments were the Clock Drawing test (60%) and the Mini Mental State Examination (MMSE 59%). The most common reasons for using standardized assessments were to get a better foundation for initiating interventions (74%), to get more reliable results (64%) and to measure the effect of interventions (47%). The most common reasons for not using standardized assessments were that they did not have competence (49%) or that they did not have access to the materials (40%).

Conclusion: The results indicate that there are challenges when it comes to the methods and standardized assessments used. These findings invite further research on enabling municipal OTs to move further towards evidence-based practice.

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Introduction

Cognitive functions are essential to the performance of everyday occupations [1] and can be defined as *the ability to take in, organize, manipulate and integrate new information with previous experiences in order to plan, structure and perform goal directed behaviour* [2]. Cognitive impairment can lead to difficulties in the way people think, feel and/or act and can result in loss of, or difficulties in acquiring or maintaining, abilities and skills necessary for occupational performance [3].

Norway is currently facing demographic changes that affect the health services; and, within the municipalities, the group of young service recipients with long-term and complex somatic disorders, such as multiple sclerosis (MS), Parkinson's disease, epilepsy, stroke, brain injuries after accidents and brain tumours [4] has doubled in the past 10 years [5]. Demographic projections in the Care Plan 2015 indicate that there are approximately 66,000 people with dementia in Norway and the number is expected to double by 2040 [6]. Under the Coordination Reform Act, the municipalities have been given new responsibilities, such as the early assessment of needs for health services and follow up services closer to people's homes. Consequently, the occupational therapists' (OT's) responsibilities related to assessment of clients with cognitive impairments is increasing and the development of competence in those matters is, therefore, essential [7].

Through assessments, OTs can measure cognitive function as well as get an understanding of how cognitive abilities contribute to and influence occupational performance [3,8]. The results of assessments are used to indicate the need for service, design interventions based on measurement results and evaluate the results of interventions [9]. OTs examine cognition and performance from many different perspectives and use a variety of methods during the assessment process, such as interviews, cognitive screening, performance-based assessments and specific cognitive measures [10]. Since the assessment of cognitive function can be considered as a starting point

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of OT interventions, when working with people with cognitive impairments, appropriate, valid and reliable assessments are crucial [11]. The implementation of evidence-based practice (EBP) has also stressed the importance of utilizing standardized assessments with sufficient psychometric properties [9,10,12,13].

Previous research

A range of assessment tools is available for OTs in clinical practice and they can be described as bottom–up or top–down assessments [14]. Using bottom–up assessments, OTs assess cognitive capacities, such as memory, attention and problem solving that are believed to be prerequisites to successful occupational performance [12]. With top–down assessments, OTs use a broad approach and can assess clients by focusing on their roles and whether the person is able to perform occupations, through observation and informal interviews [12]. Several research studies have investigated OTs' pattern of practice in relation to the assessment of clients with cognitive impairments [7,15–24]. The results of these studies indicate that OTs use both top–down and bottom–up assessments when assessing clients with cognitive impairments. Related to assessment of cognitive function, most standardized assessments used are bottom–up assessments [7,15–19,21–23], although top–down assessments are valued as more important for OTs [8,20,21,23]. The top–down assessments preferred are often non-standardized, such as informal interviews and observation [8,16–19,21–23,25]. The Assessment of Motor and Process Skills (AMPS) [26] is the most commonly mentioned standardized top–down assessment tool used in order to measure the consequences of cognitive impairments on the activities of daily living (ADL) [15,16,18–20,24,27]. The majority of the bottom–up assessments frequently mentioned in international studies are standardized assessments such as the Mini Mental State Examination (MMSE) [16–18,22,23,25,28], Neurobehavioral Cognitive Status Examination (Cognistat) [15,17,18,29], Loewenstein Occupational Therapy Cognitive Assessment (LOTCA) [17,20,24,25,30] and Rivermead Behavioural Memory Test [16,19,22,24,31]. In addition, some assessments seem to be more used in certain geographical areas. In North- America, the Allen Cognitive Level Screening [20,21,32], the Cognitive Competence Test (CCT) [18,23,33] and the Cognitive Assessment Scale for the elderly [18,23,34] are frequently used. In Oceania, the Australia Therapy Outcome Measure (AusTOM) [19,35] and the Assessment of Living Skills and Resources [17,36] are frequently used tools. In Scandinavia, the Cognitive Test 50 (CT–50) [24,37] and the ADL taxonomy [16,38] are tools that are frequently used by Danish and Swedish OTs.

Getting valid and reliable assessment results have been reported as the reason for using standardized assessments [8,22], in addition to knowing what interventions to initiate [7,8,22,23]. Assessments that are quick and easy to administer are valued as an important factor when choosing what assessments to use [7,8,19,22–24]. Knowledge of, familiarity with and accessibility of assessments are also important factors when choosing assessments [7,8,22,23,25]. That tools are not specific enough [22] and that the results are difficult to link to the specific occupational performance [8,22] are reasons reported for choosing not to use standardized assessment tools. Time constraints and heavy workloads are also reasons for not using standardized assessments [7,8,19,22–24]. Limited knowledge of how to use assessment tools and of how to interpret assessment results are also reasons for not using standardized assessment tools [7,8,22,23,25]. Although systematic training increases reliability and validity of scoring, it has been reported that a limitation on using standardized assessments is due to the significant training time and costs related to it [23]. Less use of assessment tools by OTs working in municipal practice compared with those working in regional, county and primary care facilities was recently documented in both a Swedish [16] and a Norwegian study [39]. Results from the Norwegian study also report that the OTs from the municipal services valued the usefulness less highly than OTs in the private or governmental sector [39].

Understanding one's own practice has been suggested to be a prerequisite in order to be able to implement EBP [40]. It has also been suggested that critical reflection on one's own practices are supremely important in relation to the development of the OT profession [41,42]. With the emphasis on supporting best practice, it is important to identify the main assessments used in municipal OT practice and the rationale for their use. When practice patterns have been made clear, OT can proceed towards EBP; therefore, this study was commissioned to investigate Norwegian municipal OT practice in relation to the assessment of clients with cognitive impairments. The research questions in this study were (1) What methods and standardized assessment tools do OTs working in municipal services use to assess clients with cognitive impairments? (2) What are the reasons for their choices? (3) Is there any association between the

use of certain methods and standardized assessment tools and OTs' graduating year or work setting?

Method

Questionnaire

An online self-administered questionnaire was developed for this study using EasyfactTM [43]. It contained two subsections about (i) participants' demographic characteristics and (ii) the assessment of clients with cognitive impairments. Cognitive function was in the questionnaire defined as *the ability to take in, organize, manipulate and integrate new information with previous experiences in order to plan, structure and perform goal directed behaviour* [17]. The questionnaire consisted of 14 questions and eight questions were multiple-choice, two questions had two options and four questions were open-ended. The multiple-choice questions all had an option labelled 'other, please specify'. An example of a multiple-choice question is 'What method do you use to assess the patient's cognitive functioning?' Answer options were (i) conversation, (ii) a semi-structured interview, (iii) a structured interview, (iv) standardized assessment tools, (v) observation of daily activities and (vi) other, please specify. The participants had the option of choosing up to six alternatives. The alternatives were not defined in the questionnaire, so consequently the participants answered the question having their own definitions in mind. An example of an open-ended question is 'When were you educated as an occupational therapist?' It was estimated that the questionnaire would take 6–8 min to complete. The questionnaire was piloted prior to commencing data collection to ensure face validity [44]. The first pilot group consisted of four OTs with experience of working in a municipal centre with elderly people and, specifically, people with dementia. Revisions undertaken after the pilot were in relation to estimated time use and the wording of certain questions. After the revisions had been done, the questionnaire was piloted a second time with a group of five OTs working in municipal practice, representing the target group for this study. After the second pilot, revisions relating to making some of the open-ended questions into multiple-choice questions were made, and some alternatives to multiple-choice questions were added.

Participants

The Norwegian occupational therapy organization (Ergoterapeutene) distributed the questionnaire to ensure anonymity of the participants. The questionnaire was distributed by email to 1367 OTs registered in the organization's database whose workplace was in municipal services. Numbers from the national statistical agency indicate that at the time of the data collection there were 1998 OTs in Norwegian municipalities, so the organization's database covered approximately 68% of the OTs working in Norway [45]. All OTs participated on a voluntary basis; agreeing to participate by entering the link in the invitation email. After the questionnaire was distributed, 71 OTs e-mailed the first author to decline participation for various reasons and this prompted some curiosity about the rest of the dropouts. A follow-up survey was developed based on the reasons stated, and distributed to 880 OTs who did not participate in order to investigate their reasons for declining participation in the study. Seven months after the deadline of the original questionnaire, the follow-up survey was distributed. The Norwegian Center for Research Data (NSD) approved the study in regards to ethics prior to data collection. The authors tried to follow the ethical principles for medical research in the Helsinki Declaration, throughout the process with respect to data collection.

Data analysis

Frequencies and percentages were used to describe the categorical data. The multiple-choice questions were analysed with each possible answer treated as separate variables. Logistic regression [46] was used to estimate the association among (i) the participants' work setting and use of different methods for assessing cognitive impairment, (ii) education year and use of different methods for assessing cognitive impairment and (iii) the participants' work setting and use of specific standardized assessment tools. When performing the regression analysis 1996 was used as a breaking point for 'graduating year'. The reason for this was that in the middle of the 1990s a change in the curriculum of OT schools took place, emphasizing a clearer focus on occupational performance–based assessments and evidence-based practice.

In dichotomizing the data for analysis, where assessment was used the label '1' was attached and '0' was attached where it was not used. The dependent variables used were methods and the specific standardized assessment tools and the covariates were workplace (home only or institution) and graduating year. The results were expressed as odds ratios (OR) with 95% confidence intervals (CI). p Values <0.05 were considered statistically significant. As this study is

considered an exploratory analysis, no correction for multiple testing was performed. All analyses were performed using SPSS software [47]. The open-ended questions and the option 'other, please specify' were analysed using content analysis, aiming to quantify the responses [48]. The responses to the open-ended question regarding education year were grouped together in 5-year intervals in SPSS, as the responses were numerical. The responses to the open-ended alternative for the question regarding what standardized assessment tools they used were categorized and counted, according to the name of the assessments the participants mentioned. The responses on the open-ended alternative for reasons for using and not using standardized assessments were also analysed through content analysis aiming to find similarities between the respondents. The responses for the follow-up survey were analysed by calculating the relative frequencies.

Results

The questionnaire was distributed to 1367 OTs and after two reminders, 497 completed the questionnaire, leading to the response rate in this study being 36%. As many of the questions were multiple-choice questions and the participants had the opportunity to choose more than one alternative, the percentages reported in the results add up to more than 100%. The follow-up survey consisted of three questions and was completed by 231 OTs. The main reasons for not completing the questionnaire were that assessment of cognitive function was not part of their job (42%) and that they did not have time to complete the questionnaire (34%). Other reasons for not completing the questionnaire were that they do not work with clients (13%) and that they do not work in municipal service (11%).

Participants' demographic characteristics

As regards gender, 94% of the participants were female and 6% were male. This corresponds well with studies previously reporting the distribution of the male: female ratio within the OT community in Norway (92% female, 8% male [39]). The graduating year of the participants ranged from 1971 to 2013. The spread within the OTs from different health regions, South-East (51%), West (24%), Middle (14%) and North (11%), was representative for the number of OTs working in the different health regions at the time of the data collection (South-East 48%, West 22%, Middle 18% and North 12% [45]). With regard to work setting, most of the participants work with clients living at home (93%). Many of the participants work with clients in institutions (55%) and many with clients living at home as well as with clients in institutions (45%). Working with clients living at home and with clients living in institutions was the most common combination of work settings among the participants in this study. In addition, 10% work in administration, 5% only with clients in institutions and 4% work in municipal competence services. It is unknown whether the participants have any further education in OT for clients with cognitive impairments or in assessment of cognitive function. The participants work with a range of client groups, which are specified in Table 1. The most frequent groups are persons with stroke (70%) and persons with progressive neurological conditions such as multiple sclerosis (MS), Parkinson's disease, *amyotrophic lateral sclerosis* (ALS) (69%). Thereafter, the more frequent groups are persons with dementia (59%) and persons with unspecified cognitive impairments (59%). As the table indicates, the participants work with a wide range of client groups.

Table 1. Participants' demographic characteristics and client groups.

	Frequency among participants	
Characteristic	Number (*n*)	Percentage
Graduating year ($n = 497$)		
Median 2002		
2013–2004	208	42
2003–1994	171	34
1993–1984	67	14
1983–1971	51	10
Client groups ($n = 497$)		
Persons with stroke	346	70
Persons with progressive neurological conditions	345	69
Persons with dementia	296	60
Persons with unspecified cognitive impairments	291	59
Persons with cerebral palsy	252	51
Persons with developmental disorders	247	50
Persons with traumatic brain injuries	233	47
Persons with psychiatric disorders	190	38
Other	184	37
Persons with autism	130	26

Assessment of clients with cognitive impairment

Methods for assessing clients with cognitive impairments

The most frequently used methods for assessing clients with cognitive impairments were informal interviews (91%), observations (91%) and standardized assessments (73%). See Table 2 for detailed results on methods. In relation to the difference between informal interviews and semi-structured

interviews, this is addressed in the discussion section. Logistic regression indicated that the group graduating since 1995 was more likely to use observation as a method than those graduating before 1996 (OR = 1.64).

Standardized assessment tools

The participants reported in total the use of 44 different assessments tools. The most frequently used standardized assessment tools were the Clock Drawing test (60%) and MMSE (59%). Table 3 shows the tools reported by more than 1% of the participants. Logistic regression indicated that the participants working with clients living in municipal institutions use the Clock Drawing test and the MMSE more often than the participants working only with clients living in their own homes (OR = 1.72 and OR = 1.55, respectively). Participants working only with clients living in their own homes were used as covariate in the regression analysis and that is why that is shown in Table 4. Logistic regression also indicated that the participants who use either MMSE or the Clock Drawing test are likely to have considered using the other of these two tests. Hence, it was more common to use the two tests in combination, than one of them by itself (OR = 1.64). For details on regression analysis, see Table 4.

Table 2. Frequency of participants' method of assessing cognition.

Method for assessing cognition	*N*	% of cases
Observation of daily activities	362	91
Conversation	362	91
Standardized assessment tools	291	73
Semi-structured interview	132	33
Other	37	9
Structured interview	36	9

Reasons for using and not using standardized assessment tools

The reasons stated by the participants as to why they use or do not use standardized assessments are presented in Table 5. The most common reasons for using standardized assessment tools were to get a better foundation for initiating interventions (74%), to get more reliable results (64%) and to measure the

Table 3. Frequency of participants' use of standardized assessment tools.

Standardized assessment tools	*N*	% of cases
Clock Drawing test	279	60
Mini Mental State Examination, MMSE	276	59
Sunnaas kitchen observation	95	20
Trail Making Test, TMT	51	11
Rivermead Behavioural Memory Test	46	10
Loewenstein Occupational Therapy Cognitive Assessment, LOTCA	32	7
Trandex	23	5
Assessment of Motor and Processing Skills, AMPS	23	5
The Perceive, Recall, Plan and Perform system of task analysis, PRPP	15	3
Montreal Cognitive Assessment, Moca	13	2
Arnadottir Occupational Neurobehavioral Evaluation, A-ONE	13	3
Canadian Occupational Performance Measure	12	3
Dementia Assessment Tool for Primary Health Care	9	2
Practical Mental State, PMS	8	2
Test of playfulness	7	1
Cognitive Test 50, CT 50	7	1
Dementia Assessment Tool for Primary Health Care	7	1
Movement Assessment Battery for Children, MABC	7	1
Neuromotor examination for children and adolescents, NUBU	5	1

Table 4. Regression analysis on association between method and standardized assessment use and practice location and graduating year.

Dependent variable (reference)	Variable (covariate)	OR	95% CI	*p* Value
Use of standardized assessment tools (non-use = ref)	Educated including and after 1996	0.829	0.544 – 1.264	0.383
	Working with clients living at home only	1.715	1.167 – 2.521	0.006*
Use of observation as method (non-use = ref)	Educated including and after 1996	1.643	1.039 – 2.597	0.034*
	Working with clients living at home only	1.603	1.036 – 2.480	0.034*
Use of conversation as method (non-use = ref)	Educated including and after 1996	1.749	1.128 – 2.713	0.013*
	Working with clients living at home only	1.233	0.521 – 2.919	0.634
Use of the Clock Drawing test (non-use = ref)	Educated including and after 1996	0.829	0.544 – 1.264	0.383
	Working with clients living at home only	1.715	1.167 – 2.521	0.006*
Use of MMSE (non-use = ref)	Educated including and after 1996	0.986	0.650 – 1.497	0.949
	Working with clients living at home only	1.551	1.057 – 2.275	0.025*

*p Value <0.05.

Table 5. Frequency of participants use and non-use of standardized assessment tools.

	N	% of cases
Reasons for using standardized tools		
To get a better foundation for initiating intervention	250	74
To get more reliable results	216	64
To be able to evaluate effect of the intervention	161	47
Other	68	20
Reasons for not using standardized tools		
Lacks competence	124	49
Do not have access to materials	103	40
Lack of time	77	30
Other	71	28
There is no tradition for it at the workplace	65	26
The tests does not provide answers to what I am wondering about	55	22
Do not want to expose my clients to testing	39	15

effect of their interventions (47%). The most common reasons for not using standardized assessment tools were that the participants did not have the competence to do so (49%), they did not have access to materials (40%) and that there was a lack of time (30%) to do so. The participants had the opportunity to give reasons why standardized assessment tools might be used even though they did not use any themselves. Twenty per cent of the participants used the option 'other' in reply to the question on why they use standardized assessment tools. Answers indicate that the participants use them as they are well-known tools for the multidisciplinary team and that they are expected to use them as part of the process of diagnosing dementia. Twenty-seven per cent of the participants used the option 'other' in answering the question on why they do not use standardized assessment tools. Reasons stated were that it was the responsibility of other members of the team to do standardized assessments; that the clients have already been tested in the hospitals; or that the participant did not reckon the standardized tests they were able to use would be relevant, because assessment of the patient's occupational performance would be more appropriate.

Discussion

The aim of this study was to investigate Norwegian municipal OT practice in relation to assessment of clients with cognitive impairment. Specifically (1) What methods and standardized assessment tools do OTs working in municipal services use to assess clients with cognitive impairments? (2) What are the reasons for their choices? (3) Are there any associations between the use of certain methods and standardized assessment tools and OTs' graduating year or work setting?

Methods for assessing clients with cognitive impairments

The results indicate that the group of OTs educated after 1995 were more likely to use observation as a method than those educated before 1996. One possible explanation for this could be the shifting paradigms within OT, where OTs in the 1960–1980s had a more reductionist view on both assessments and interventions [49], where the occupational performance aspect was not emphasized in many practice settings to the degree it has come to be since the 1990s. However, one might also assume that the tradition in the various practice locations would have an influence on this aspect, leading to newly hired OTs adopting the traditions already existing in the practice locations.

Historically, OTs have favoured non-standardized assessments such as informal interviews and unstructured observations [12]. A major limitation when using informal assessments is the challenge of ensuring the reliability and validity of the assessment results, leading to difficulties with, among other aspects, measuring treatment outcomes [11,12]. As observations and informal interviews are valued as important methods for OTs [16–19,22–25], it is important to have standardized tools to use in combination with these methods, in order to ensure valid and reliable assessment results.

Standardized assessment tools

In addition to observations and informal interviews, 73% of the participants in this study report that they use standardized assessments. Many standardized assessments used within OT are bottom-up assessments, measuring body function and structures [7,15–23]. However, it can be argued that those are not always suitable in municipal practice, where the focus in many cases is more on the level of activity, occupation and participation. In this study, the MMSE and the Clock Drawing test were the most frequently used standardized assessment tools. An association was found between them demonstrating that if MMSE is used it is likely that the same OT would also use the Clock Drawing Test. Regression analysis also indicated that the participants working with clients living in institutions use the MMSE and the Clock Drawing test more frequently than the participants working only with clients living at home. It was outside the scope of this study to investigate why that is, however, although one explanation could be that OTs in municipal institutions in many cases have a specific responsibility to perform these standardized

tests as routine on admission. The other international studies that found MMSE used frequently did not find that the Clock Drawing Test was as common as it had been among the Norwegian OTs [15,16,18,19,21]. Although the Clock Drawing test is not that frequently used in the international studies, it has been recommended for use in connection with screenings such as the MMSE [15,50]. One reason for the frequent use of the Clock Drawing test in Norway can be the effects Ageing and Health [51] has had on developing and implementing the Dementia Assessment Tool for Primary Health Care [51]. The assessment contains eight different tools, whereas the MMSE and the Clock Drawing test are the two that are usually completed by OTs. It is also documented that standardized assessment tools that are quick and easy to administer are important for OTs in clinical practice when they are choosing what tools to use [7,8,19,22–24]. Although the participants did not state that as a reason for using the MMSE and the Clock Drawing test in this study, it could be assumed that this aspect is an important reason for the reported frequent use of these two tools, as they can both be administered within a short timeframe and do not require extensive training.

There were no differences between the groups educated before and after 1996 in regard to the use of standardized assessment tools and this was noteworthy, as with the implementation of EBP from the mid-2000s, the OT schools have emphasized standardized assessments in the curriculum. The client groups the participants are working with are those with stroke and progressive neurological disorders and the most common tools are the Clock Drawing test and the MMSE. This is interesting, as both these tools are emphasized as tools suitable for use in connection with diagnosing dementia rather than with the assessment of stroke and neurological impairment. Whether it is a mistake to use these tools for assessment of stroke or neurological impairment would be an important subject to reflect upon and investigate further.

When reporting the most frequently used method for assessing cognitive function the OTs in this study report that they use observation of daily activities and informal interviews. Looking at the valid and reliable top-down assessments, they are used to a very limited extent and that indicates that most of the observations done are non-standardized. Five per cent indicate they use the Assessment of Motor and Processing Skills (AMPS), 3% the Perceive, Recall, Plan and Perform system of task analysis (PRPP), and 3% indicate they are using the Arnadottir Occupational Neurobehavioural Evaluation (A–ONE). The Sunnaas kitchen observation, however, [52], is reported as the third most frequently used standardized assessment, with 20% of the participants indicating that they use it. The Sunnaas kitchen observation was developed in Norway, at Sunnaas Rehabilitation Hospital in the 1980s. The language is Norwegian, and there is little requirement in relation to costs or time used in order to learn how to use it. Studies have emphasized that costs and time requirements are important factors that could hinder the implementation of new assessment tools for OTs in clinical practice [7,8,19,22–24]. Subsequently, important reasons why so many of the participants in this study choose to use the Sunnaas kitchen observation in their practices could be that it is available for OTs without cost or need for training and that the language is well known. It is documented in international studies that OTs tend to prefer assessments developed in their own geographical locations [16–20,23,24]. However, the reason why that is so could be a topic for future research. The Sunnaas kitchen observation is standardized in regard to the activities being assessed and scoring procedures; however, there are no studies on psychometric properties in relation to its use [52]. This indicates that the trustworthiness of the results could be questioned, and whether it should be used to the extent reported in this study ought to be studied.

Studies on psychometric properties have been undertaken in regard to the AMPS, PRPP and A-ONE. These studies indicate that the assessment results can be considered valid and reliable for various client groups [53–61]. These tools, however, require OTs to take part in extensive training, which is time consuming and costly. Although it is time consuming to go for further training and implementing the new tools in practice, spending the necessary time for a thorough assessment will provide a starting point for instigating the appropriate intervention and lead to assessment results that are both valid and reliable.

Reasons for using and not using standardized assessment tools

Seventy-two per cent of the participants in this study reported that they use standardized assessment tools in order to get a better foundation for initiating interventions, and this has been documented both in the literature [9,11] and in previous research [7,8,22,23] as reasons why standardized assessment tools are used. It is important to have a thorough understanding of clients' resources and limitations in order to

tailor interventions to the individuals [3,11,12]. It was indicated by 64% of the participants that they use standardized assessments in order to get more reliable results, and this is in line with the implementation of evidence-based practice where OTs are encouraged to use more standardized assessments in their practices in order to be able to trust the results of the assessments [3,11,13]. Reliable and valid assessment results are also important reasons for using standardized assessment tools in previous research [8,22]. Almost 50% of the participants say that a reason for using standardized assessment was to measure the effect of their interventions. When looking at the most frequently used assessments, MMSE and the Clock Drawing test, they have been developed in order to identify impairments rather than describe occupational performance or make predictions on a performance level [15,18]. It was outside the scope of this study to investigate interventions and what tools are used to measure the effect of the interventions; however, it is worth mentioning that tools such as the MMSE and the Clock Drawing test are not developed to measure interventions related to an occupational performance level.

The three most common reasons for the participants not using standardized assessments were lack of competence (49%), no access to materials (40%) and lack of time (30%). Lack of competence has been emphasized in other studies [7,8,22–24]. To cope with that it has been suggested that OTs should take additional courses, both in regard to assessment procedures and as intervention [11]. Lack of time was the third most common cause reported by the participants for not using standardized assessments, and this was also found to be a reason for not using standardized tools in previous studies [7,8,19,22–24]. Implementation of new assessments takes time, and challenges when doing assessments in the early stages when they are not that familiar to the therapists, can reduce the quantity of time given to other clients [7], because using standardized assessments can take more time [7,24]. In addition, OTs may experience difficulty in prioritizing participation in further training, due to a heavy workload from day to day [22]. However, choosing not to prioritize time for training or doing standardized assessments conflicts with evidence-based practice and invites further reflection.

Limitations of the study

The aim of this study was to investigate Norwegian municipal OT practice in relation to the assessment of clients with cognitive impairment.

When using a questionnaire for data collection, the use of closed questions enables the possibility of drawing conclusions from a large group of participants [48]. However, there is a possibility that the answer options may not reflect the exact meanings of the OTs [48]. In order to minimize these disadvantages, the participants in this study had the opportunity to choose multiple-choice alternatives for answering the different questions, in addition to being able to give their own replies in the final alternative labelled 'other, please specify'. In spite of this, the participants might not have used that option and thus their exact meanings might have been lost.

The Norwegian occupational therapy organization distributed the invitation to participate in this study to the members registered in their database and this led to many OTs receiving the invitation. Four hundred and ninety-seven OTs participated in the study but since there were 1998 OTs in Norwegian municipalities at the time of data collection, this study does not reflect the whole picture. There is a possibility that the database was not updated with the OTs' correct email addresses and, based on the feedback received from some OTs, they had changed jobs and were, therefore, no longer in the target group for the study. There is also a possibility that there are OTs who would have been in the target group but at the time of distribution were not registered in the organization's database. This could be due to not having updated their membership information, or they were not members of the organization. The OTs received the invitation by e-mail including an introductory text with a link to the online questionnaire. As the wording in the introductory text focused on assessment of clients with cognitive impairments, some OTs could have felt that was not their field of expertise (although they might assess cognition in their practices), leading them to decide not to participate. In addition, the first author received feedback from some OTs that firewall settings on their work computers would not allow them to access the link with the questionnaire.

The most frequent methods for assessing cognitive function were observation of daily activities and informal interviews. These are also frequently used methods in international studies [16,19,23,25]. As the answer options on what methods the participants use when assessing clients with cognitive impairments were not defined in the questionnaire, there could be a source of error related to the results from this question. The difference between an informal interview and a semi-structured interview was up to the participants themselves to define and might have been

interpreted differently. However, looking at the other studies reporting that informal interview is a method frequently used [16,19,23,25], it is likely that the results in this study would not have differed largely had the options been defined. In addition, the participating OTs piloting the questionnaire did not comment on uncertainty regarding the definitions on the various alternatives in the questionnaire, so consequently they were not added to the questionnaire prior to distribution.

The methodological limitations in this study raise key questions regarding the trustworthiness of the study. Whether the limitations are severe enough to affect the transferability of the results is difficult to say. The sample was representative in regard to sex, graduating year and health regions, so at least it should be grounds to generalize and state that this is the practice of Norwegian OTs in municipal service. However, only 36% filled out the questionnaire and another 17% completed the follow-up study. That means that the practice of 47% of the OTs in municipalities, at the time of data gathering, is still unknown.

Implications for practice and future research

The methods preferred by the participants in this study were informal interviews and observations. The standardized top-down occupation-based assessment tools were not generally used, indicating that most of the observations done are unstructured observations. In the current climate focusing on evidence-based practice, it would be recommendable to implement and use standardized assessment top-down tools in the municipalities in a higher degree than the results of this study indicated.

The client groups most participants are working with are clients with progressive neurological diseases and stroke, and the most frequently used standardized assessment tools used are the Clock Drawing test and the MMSE, which are recommended for use in dementia care rather than neurology. Whether they are in fact used on clients with neurological conditions, such as stroke and progressive disorders such as MS or Parkinson's disease, is unknown and should be a topic for future research. It is recommended that the OTs in municipalities reflect upon the tools they choose to use and the limitations they entail, in regard to who they are developed for and what the results can be used for.

The results of this study invite OTs to reflect and create awareness of the choices, in addition to what values and attitudes are implicitly influencing their assessment practices. The results also prompt some topics for future research such as

- How do municipal OTs use the results from MMSE and the Clock Drawing test in their practices?
- Is there a tendency that OTs prefer using standardized assessment tools that have been developed in their geographical areas and if so, why is that?
- In what way could a standardized observational tool such as the PRPP [2] or the AMPS [26] be suitable assessment tools used for observation of the occupational performance aspect in the context of municipal service?

Conclusion

The overall conclusions of this study indicate that there are challenges regarding the assessment of clients with cognitive impairments, when it comes to both the reported methods and the assessment tools used by the participants. The participants' preferred methods for assessing cognition are informal interviews and observations, but the standardized assessment tools in this regard are not frequently used. These findings invite further reflection and research on whether using non-standardized assessments conflicts with evidence-based work. This aspect could be investigated through qualitative methods such as individual or focus group interviews with the aim of enabling municipal OTs to move further towards evidence-based practice.

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ORIGINAL ARTICLE

The conflicted practice: Municipal occupational therapists' experiences with assessment of clients with cognitive impairments

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ABSTRACT

Background: The practice of Norwegian occupational therapists (OTs) in municipal practice is a little explored area and with the Coordination Reform Act from 2012, Norwegian OTs in municipal practice have received responsibilities concerning clients with cognitive impairments. The aim of this study was to explore municipal OTs experiences with assessment of clients with cognitive impairments.

Method: Fourteen individual interviews with OTs who worked with clients with cognitive impairments, were conducted. An inductive thematic analysis, using text condensation and coding, was performed.

Results: The results revealed three themes; power of occupation, advantages and disadvantages of assessments used and the need for competencies within municipal services. The participants emphasized using observation in the assessment process and reflected on pros and cons of the standardized assessment tools they used. They expressed a need for competence development, although it was difficult to prioritize to do so.

Conclusion: This study illustrated a conflicted practice related to choices OTs make in their practices. They valued the importance of working occupation based, however, they chose to use impairment based standardized assessments. They expressed a need to engage in professional development, but due to heavy workloads, the limited power they experienced and lack of knowledge, this was difficult.

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Introduction

Through assessments, occupational therapists (OTs) measure cognitive function as well as get an understanding of how cognitive abilities contribute to and influence occupational performance [1]. OTs use assessment results to indicate the need for service, design interventions and evaluate results of interventions [2]. OTs use a variety of methods during the assessment process, such as interviews, cognitive screening tools, performance-based assessments and specific cognitive measures [3]. Several research studies have investigated OTs' pattern of practice related to assessment of clients with cognitive impairments [4–16]. Although top–down assessments are often non–standardized, such as informal interviews and unstructured observation [1,4,7–12,14,15], they are considered as more important for OTs than standardized, bottom–up assessments [1,4,10]. Being quick and easy to administer is valued as an important factor when choosing what assessments to use [1,4,6,8,11,13], as is knowledge of, familiarity with and accessibility of assessments [1,4,5,8,14]. Reasons for not using standardized assessments are reported to be that tools are not specific enough [8], that the results are difficult to link to occupational performance [1,8], time constraints and heavy workloads, in addition to limited knowledge on how to use and interpret results from standardized assessments [1,4,5,8,11,13,14]. When using standardized assessments, the challenge of distinguishing capacity from performance has been highlighted [17,18]. Simply because persons have the capacity to perform certain occupations, does not necessarily mean that he or she performs these occupations in their everyday lives [17,18]. The impact of the context in which the occupations take place is recognized as important, not only when doing assessments [17] but also related to rehabilitation [19–22]. Although there is a need for OTs to implement occupation–based practice [23–25], workplace expectations and limited power to influence practice, are known to

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hinder OTs from addressing occupation in practice [26,27].

OT assessment practice in Norway

Norwegian OTs work with multiple client groups [15], within different fields and areas [28], and municipal care OT is a central and growing profession as in other parts of the world [29–31]. Within municipal care, the group of young service recipients with long-term and complex somatic disorders, such as multiple sclerosis (MS), Parkinson's disease, epilepsy, stroke, brain injuries and brain tumors has doubled in the past 10 years [32,33]. Demographic projections in the Care Plan 2015 [34] indicate that there are approximately 66,000 people with dementia in Norway and the number is expected to double by 2040 [34]. Under the Coordination Reform Act, the municipalities have been given new responsibilities, such as early assessment of needs for health services and follow up services closer to peoples' homes [30]. Due to the new responsibilities and the demographic changes, it has been suggested that development of competence as well as research on municipal services is needed [29], and it is estimated that the number of OTs working in municipal care should be tripled to meet the health care challenges of the future [33]. Despite its prevalence and significance, the practice of Norwegian OTs working in the context of municipal care is a little explored area. Gramstad and Nilsen [35] studied municipal OTs working with clients and other health care personnel and the results indicated that OTs face challenges related to communication of their competence and that others' expectations did not match the OTs' understanding [35]. A recent study investigated the practice of Norwegian OTs related to clients with cognitive impairments in the context of municipal service, and the results indicated challenges in regards to the preferred methods and standardized assessment tools used by OTs. One of the most frequently used methods was observation of occupational performance, however, the occupation based standardized assessment tools were not generally used, indicating that most of the observations done were unstructured [15]. A prerequisite for development of any profession is said to be the critical evaluation of the current practice [36] and the OT profession has been critiqued for not having done that extensively [37,38]. As the practice of Norwegian OTs in municipal service has mainly been investigated through quantitative methods, the main aim of this study was to explore in more depth the OTs experiences of assessment of clients with cognitive impairments.

Method

A qualitative descriptive design, as described by Sandelowski [39], was employed in this study to provide in depth description of the OTs experiences working with clients with cognitive impairments in the municipalities. The authors of this study were striving to understand OTs in their practices and their everyday experiences related to clients with cognitive impairments.

Recruitment and participants

Fourteen OTs who recently had participated in a larger quantitative study using an online questionnaire, were recruited to participate in interviews to investigate their experiences working with assessment and intervention related to clients with cognitive impairments. The Norwegian Occupational Therapy Organization distributed the invitation to 497 OTs that participated in the quantitative study, to ensure the anonymity of the participants. The Norwegian Centre for Research Data (NSD) approved the study in regards to ethics prior to data collection. The authors followed the ethical principles for medical research in the Helsinki Declaration, throughout the work with this study. Figure 1 illustrates a flowchart of the participants. This article presents data from the 14 individual interviews. The participants' descriptive data is presented in Table 1.

All participants had in common that they worked with clients with cognitive impairments. In regards to work setting, all participants worked in municipal practice; however, they had different responsibilities in their daily work. Six participants worked with clients living in their own homes, performing, as they said themselves, 'traditional' OT services focusing on home modification and assistive technological solutions. Five participants worked in teams' specifically targeting people with dementia, emphasizing diagnosing dementia and initiating appropriate interventions, such as day care services. Three participants worked with municipal rehabilitation; one in homebased rehabilitation and two in municipal institutions, where people either live for a short time, or they live at home and come to the institution several days a week for rehabilitation.

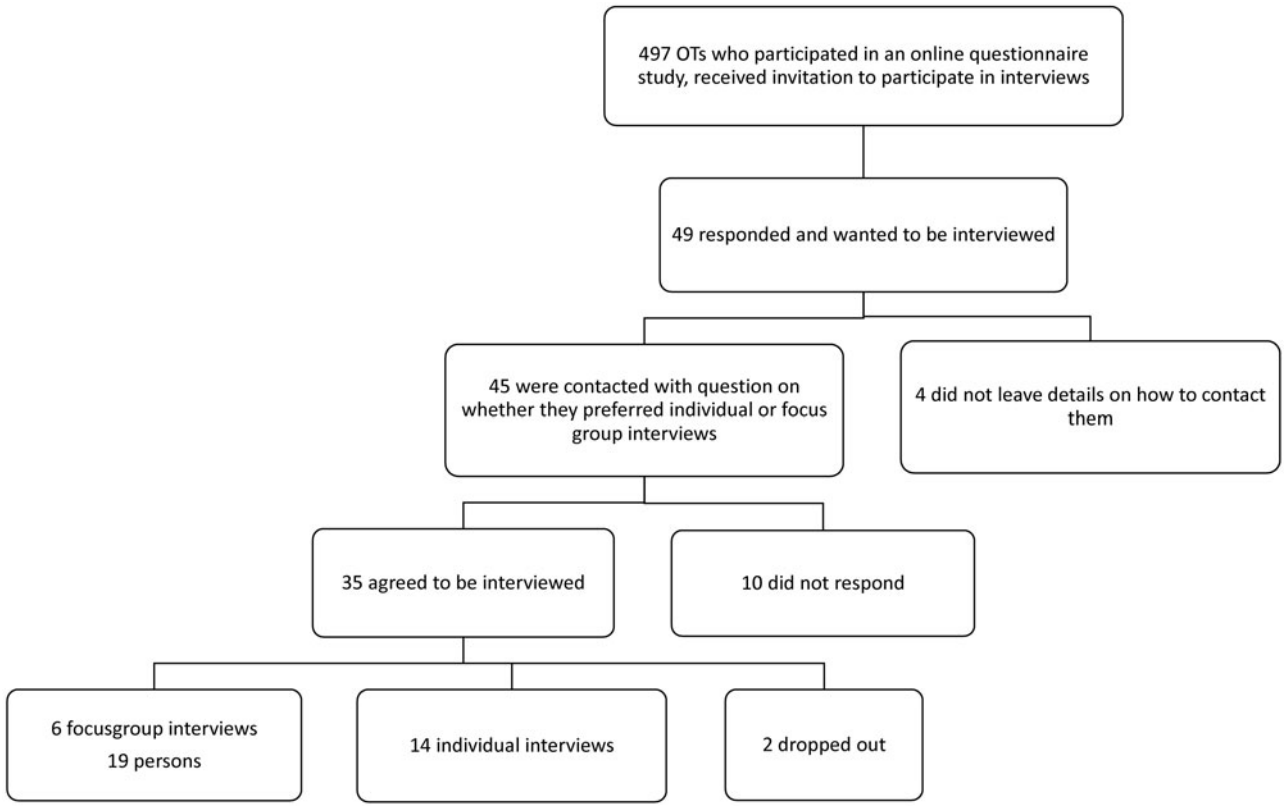

Figure 1. Flowchart of the participants.

Table 1. Participants' descriptive data.

Variable	
Sex	Female: 14
Year of graduation	Range: 1979–2007: 28 years Median: 1990
Health region	South-East: 10 West: 2 North: 2
Size of municipality	Big[a] municipalities: 9 (range 22000–270000) Medium[b] municipalities: 5 (range 6100–7800) Small[c] municipalities: 0

[a]Big municipalities: more than 20000 inhabitants.
[b]Medium municipalities: 5000–20000 inhabitants.
[c]Small municipalities: less than 5000 inhabitants.

The process of data collection and analysis

Semi-structured interviews were conducted using an interview guide [40]. As this was the first study investigating the practice of municipal OTs, the interview guide was based on broad and open questions to facilitate in depth descriptions of the participants' experiences working with clients with cognitive impairments. All interviews were conducted in Norwegian, by the first author who is an OT experienced in working with rehabilitation of people with cognitive impairments as well as with municipal health services. In accordance with the qualitative framework, the researchers' positioning was of great importance in the process of gathering and analyzing the material [41]. The researchers' activity was influenced by having two roles; the researcher and the interviewer. During the interviews, there were ongoing dialogs between the researcher and the participants, which opened up interpretative and communicative processes, comprising both acting upon and reflecting in action [36]. The researcher (first author) strove to understand how the OTs talked about their practice in the municipalities, which required her to talk and act in an open-minded way. The participants were asked to describe their experiences by answering questions on topics such as their clients' diagnosis, their experiences with assessment of clients with cognitive impairments, specific assessment tools, collaboration with other professionals related to assessment, and experienced challenges, limitations and benefits in their practices assessing clients with cognitive impairments. Probing questions for clarification, showing understanding, extending the narrative and accuracy [40] were used throughout the interviews to ensure understanding of the statements. The interviews lasted 46–90 minutes and all except two, took place in a closed room in each participant's working facility. The last two took place in a library and at a train station, by the choice of the participants. All interviews were audio–taped and transcribed verbatim by the first author.

The analysis was conducted according to Stanley's [42] description of thematic analysis. The analysis was inductive in nature emphasizing the statements from the participants when analyzing the data. Three researchers read the transcribed texts several times independently, to get familiar with the data and to get an overall view of topics of which the participants were concerned. Text condensation and line by line coding was thereafter performed to build codes inductively, where after the codes were grouped together by reaching consensus among the researchers. The next step entailed lifting the analysis to a conceptual level and trustworthiness was strengthened by engaging in a reflective process and by discussing themes as they arose among the authors. During this process, the authors sat together once a month for four months, in addition to having email contact, to discuss the development of the analysis. When the interpretations differed, the authors reflected and discussed until consensus was reached. Every meeting ended with a summary of the discussions and a plan for the next step was made. During the process of analysis, the transcribed interviews were kept in Norwegian. In order to keep a sense of coherence with the participants' statements, the authors chose to stay close to the participants' own words when determining the final stage of the analysis, naming the themes. After the themes were determined, both themes and the respective quotations were translated into English by a professional translation bureau. As the bureau did not have the full context of the interviews, some of the translated quotations went through refinement by the authors in order to correctly be represented. Table 2 illustrates an example of the analytical process going from the statements, condensed statements, codes, grouping of codes in order to finally reach the themes.

Results

Three main themes arose from the analysis. These were; the power of occupation, advantages and disadvantages of assessments used and the need for competencies within municipal service. The citations used in the following section were chosen to illustrate the three main themes, and were gathered from all the 14 interviews.

The power of occupation

The participants highlighted occupation as the core of OT and stressed the importance of enabling people to participate in occupations as it influences peoples' health and wellbeing. They emphasized that *'what is meaningful for you'* is one of the first questions they asked their clients. They said that *'occupational therapists are accustomed to using practical activities; we're accustomed to using them as our tool'*. Including the occupational perspective was very important to them, as there is not always a connection between results on desktop tests and performance of everyday occupations. As one participant put it; *'this kind of desktop work, it can be helpful, but it doesn't play that big a role in people's daily lives'*.

The participants were mainly using informal or unstructured observations of occupational performance; however, some were also using standardized observational assessments. When they assessed occupational performance, several said that they did not use a standard form; rather they used their tacit knowledge and kept the *'activity analysis in the backbone'* instead of explicitly on a piece of paper in front of them. The informal observational assessments were not always planned for; *'it's more when the occasion arises that we do it'*. They used any everyday situation

Table 2. Example of analysis from statements to final themes.

Original statement	Condenced statements	Codes	Theme
I am very concerned with activity, that is what's the core of the profession. So that kind of desktop stuff, it can be useful, but that is not what's important in people's lives.	Activity is the core of the profession. Desktop stuff does not play a big role in people's lives.	Activity is the core and what's important in people's lives.	The power of occupation
I think we should have something that could more detailed identified what's the problem, where the shortcomings are.	Need a tool that can identify what is the problem.	Lacking a tool	The need for competencies within municipal services
It is about the results you get in the end, because OTs are very good at picking a little bit here and a little bit there and putting it together as our own.	OTs are good at picking here and there and putting together as our own.	Picking from here and there.	Advantages and disadvantages of assessments used

such as sitting by the breakfast table, on the way to the therapy room or during the initial conversation or situations as they appear during the sessions. The most common occupations used in the assessment process were kitchen activities and primary ADL, such as personal hygiene, grooming and dressing. Some participants reported that for many clients, everyday occupations are highly valued and that they therefore are motivated to perform them. The participants underlined the importance of using the home environment during the assessment process as they had experienced that performance could vary greatly from an unknown to a well–known environment. As the results of the assessments in some cases could have serious consequences for the clients, such as determining where their clients' will reside, they emphasized that they wanted the results to be as accurate as possible, thus performing the occupations in the relevant contexts was important.

Advantages and disadvantages of assessments used

The participants addressed advantages and disadvantages of the assessments they used in different ways. The MMSE [43], the Clock Drawing test [44] and the Trail Making test A + B [45] were described as desk–top assessments that were well–known tools, which were easy and efficient to use, in addition to being effective in administration time. As one participant stated; '*depending on how much time you spend, they can show you quite a bit*'. However, as the MMSE [43] is not profession specific, it was used in different ways by multiple professions, leading to problems with validity of the results. As one participant stated '*that's kind of the drawback, that once it turns into public ownership, … , it loses a bit of its' value because it's used anywhere and everywhere*'. Most participants explicitly said that they were reluctant to use the MMSE [43] results uncritically. Although the screening tests were easy to administer in a short time frame, some participants reflected upon why they used them, as the results did not always say a lot about how the person functioned in everyday life. Some have had clients with a low score on the MMSE [43] but who managed quite well in their environment. They questioned '*why am I doing the assessment? What do I actually get out of it?*' They also questioned why the ordering authority was so concerned with receiving the MMSE [43] score, what would they use it for? It was also important to evaluate in what context the tests were done, as several aspects, such as the presence of family members or an unknown environment, might influence the results. They also talked about the factors that could influence the results, such as motor skills, vision, hearing, and how the fact that the MMSE [43] often was referred to as a test could lead to stress for the clients and thus the validity of the results could be influenced. '*Many people have very bad associations when they hear the word test, and what concept we use should not define how stressed a person becomes*'.

Several participants referred to the Dementia Assessment Tool for Primary Health developed by Ageing and Health [46], and stated that there are advantages of using such tools as it is a compilation of various assessments and questionnaires. However, they underlined, at the same time, the importance of being aware that there might be important aspects that the tool does not assess, thus leading to limited results. One said that '*the main drawback is perhaps that it becomes the safety in your work, you have to dare to do more*'. She reflected on the fact that when only using that tool she might miss something in the assessment process. She continued, however, by saying that it was important to have some routines in her work, and consequently, she saw both strengths and limitations in using that tool. Several participants highlighted that there were major limitations in many of the desk–top assessments, leading to the need to add information in the margins of the assessments. Often they wrote more at the side of the assessments than in the actual assessment forms; as one participant stated '*there is a lot of cluttering on the side*'. The assessments she used did not give her all the information she felt she needed in the assessment process and therefore she needed to add something to the results.

Some participants had experience using standardized observational assessments, such as the Assessment of Motor and Processing Skills (AMPS) [47] and The Perceive, Recall, Plan and Perform System assessment (PRPP) [48]. One said that by using the PRPP [48], the results became more structured, clear and trustworthy and that she felt she had something more concrete to work with. Other participants, who were AMPS [47] trained, had chosen not to use it in the municipality practice as they said that it was difficult to use in a hectic workday. '*You have to be very particular about which tasks you choose, they're very rigid, and it's hard to find tasks that are familiar and that can be adapted to the service user's daily life*'.

Although several participants talked about the advantage it was using observation based assessments, an issue that emerged was acknowledging the

distinction between capacity and performance. The participants stressed the importance of being aware that clients might have the capacity to perform certain occupations, however, in their daily life they might not actually perform them, which could be due to reduced initiative or motivation. They stressed the importance of emphasizing the role of initiative, specifically related to the process of diagnosing dementia and the need for assistance in everyday occupations. As one participant put it, *'there is very limited focus on initiative for people with dementia. What will it take for Mrs. Hansen to be able to get herself a slice of bread from a bread box with a lid? Sure, it's much easier to look at the physical functions, but they really, they mean nothing when you don't have initiative, when you're not taking action'*.

The need for competencies within municipal service

The participants said that there was room for development of competence on how to work with clients with cognitive impairments in the municipal health services. They referred to the demographic changes within the Norwegian population, with people living longer, more people developing dementia, in addition to the recipients of municipal service becoming younger and younger. As one participant stated *'I firmly believe that we will need this (competence) due to the Coordination Reform and also because people are getting older and need to live at home for as long as possible. More and more rehabilitation will take place in peoples' homes'*. They explained that one result of the Coordination reform [49] was that municipalities had received new responsibilities that were previously the responsibility of the hospitals and they highlighted the need for new and appropriate assessment tools. The participants expressed concerns in regards to one of the aims in the reform, namely the development of competence in municipality services. Several questioned how and when the competence would be developed. As one participant stated *'I have to say that I still wonder what's going to happen with all the big words, when the competence is going to be developed. I don't really think we've benefited from the development at least'*. Other participants, however, described that there had been some development of the services in regards to those new needs. They mentioned that initiatives such as establishment of dementia teams, effective treatment chains, inpatient rehabilitation units and reablement services had been a response to the Coordination reform [49]. They continued saying that it was challenging to engage in professional development related to these areas, as they were only one of many areas in which they had to provide services. Working with clients with cognitive impairments is time consuming and as time restrictions were an issue to several participants, they did not have the opportunity to provide the quality services that they would've like to. In addition, the participants who were working alone in their municipalities said they missed someone to discuss professional issues with, saying that development of competence and implementing new assessment tools were usually easier when they were not alone. As one participant said, *'it's also a question of competence as well, but as a municipal occupational therapist you're working with… you pretty much know a little bit about everything'*. However, even in municipalities where there was more than one OT, they experienced challenges implementing the newly acquired knowledge. *'It's hard, it's no use sending two people to take a class and then expect them to teach everyone else, and because they just end up saying something like 'oh, yeah, it was a lot of fun', and then nothing ever comes of it'*. Several said that they believed that OTs have more competence on cognition than other professions from their education. However, they underlined that it was easy to forget what you know if you had only focused on one thing for a long time. *'I think that if you've been an OT and a provider of assistive technology devices for long enough, then it's almost as if you can't remember what you can contribute with and you become unsure of yourself'*. She continued reflecting on the fact that when you were not confident on your own competence it was difficult verbalizing it to others. However, she continued saying that *'I think we could have contributed more if people knew what we actually can do'*.

In addition to general competence on cognition and cognitive impairments, the participants emphasized the need for assessment tools that could effectively measure the consequences of the cognitive impairments on everyday occupations. They said they lacked a standardized tool that could systematically illustrate the impact cognitive impairment had on their clients' lives, that could guide where and how to initiate the appropriate interventions and document the effect of their interventions. As one participant explained *'I think we should have something that could help us take a more detailed look at what the problem is, in which areas the shortcomings are'*. Some mentioned that OTs have a tradition of taking parts of different tools and making their own homemade tools, however, they reflected on the limitations

in assessment results when doing so and questioned how the results could be trusted if they put something together on their own. They also commented on the fact that learning and implementing a new tool might take time and that some clients might suffer as a result. As one participant put it, *'This could affect other service users who might have to wait even longer than they already do, but any change is painful, and this applies for both therapists and services. You have to put up with it if you're going to make a change, but you have to hope that it'll be better on the other side'*.

The participants were concerned with how limited resources influenced their practices. Several worked as the only OT in their municipality having responsibility for every required OT tasks. As one participant highlighted *'It's challenging when you're on your own in a municipality and you have to work with all kinds of service users and you have a huge number of partners'*. When struggling with limited resources they were torn between what they knew would benefit the profession in the end and surviving their caseloads on a daily basis. Some emphasized, however, that OTs have to learn to say no, and think about the future. They said they have to dare to go beyond their traditional roles in the municipalities and as one participant stated; *'We're in our comfort zone, so of course it's uncomfortable to take a step outside of that comfort zone'*. Related to the current climate changes in the municipality services they envisioned possibilities for OTs and one stated that *'We have to sign up'*. Based on changes that had already taken place in some of their municipalities and related to implementation of reablement services, they were in general positive regarding the future. As one participant put it *'I believe in a future for occupational therapists, and it's starting to take shape'*.

Discussion

The results illustrated that the participants were experiencing their practice as somewhat challenging, and that they faced several conflicts in their daily practice assessing clients with cognitive impairments. This following section is structured to address three conflicts; (I) the conflict of working on the level of impairments or occupation, (II) the conflict of the standardized assessments not being good enough but still choosing to use them, and (III) the conflict of living up to 'everybody's' expectation of what an OTs' responsibilities are, when it doesn't match their own.

The conflict of working on the level of impairments or occupation

The participants highlighted that enabling occupation is the core of OT and evaluating occupational performance is important when assessing the effect of cognitive impairments on everyday life. The participants tended to use informal observations of occupational performance in everyday spontaneous situations, such as when being welcomed in and shown around when doing a home visit, or on the way to the treatment room in municipal institutions. Informal observations of occupational performance, as well as informal interviews, have been reported to be important methods for OTs when assessing the impact of cognitive impairments on occupational performance [1,4,7,9–12,14–16,31]. However, that practice invites reflection on challenges when informal observations remain the basis of statements regarding clients' resources and limitations without adding results from standardized assessments of occupational performance. Can the results be trusted if there is no verification of whether the assessment results actually are valid and reliable [37]? In order to obtain "realistic" results, the participants preferred to use their clients' homes as the context of assessment. The impact of environment on occupational performance has been reported as important in previous research [16,19–22]. Due to the demographic changes in Norway, it is expected and necessary that people remain living in their own homes as long as possible [49] so using the home as the context for assessment is essential [17] as that is where they perform the occupations on a daily basis.

Although informal assessments of occupational performance are preferred, some of the participants reported having experience using standardized observational assessments such as the AMPS [47] and the PRPP system of task analysis [48]. One participant reported that when using the PRPP [48], the results of the observations became more structured and clear, as well as giving her an indication of where and how to initiate intervention. On the other hand, several participants found the AMPS to be a difficult tool to use, as they perceived it as too rigid to be suitable to use in the context of their practices. A recent study investigating the practice of Norwegian OTs in municipal practice found that standardized observational assessment tools such as the AMPS [47], PRPP [48] and the A-ONE [50] were used, although to a limited extent [15]. So why is it that the OTs are so reluctant to use the standardized observation based assessments in their practices? Is it only because they perceive the

frames to be too rigid? Implementing new methods in practice takes time [51] and whether or not the standardized observation-based assessments actually are feasible in community practice should be investigated. On the other hand, it is emphasized in relation to EBP to use standardized assessments with solid psychometric properties [3], and since there are not many observation based standardized assessments with sufficient psychometric properties available, should they not be used to a higher degree? Maybe one strategy in order to achieve that could be to develop professional guidelines for OTs in municipal practice, assisting them in regards to which methods and specific tools could be applicable.

An aspect that appeared in relation to using occupation based assessments, was the distinction between capacity and performance which has been highlighted in previous studies [17,18]. The participants emphasized the importance of assessing not only whether their clients had the ability to execute the occupations and activities, but also whether they actually did it in their societal contexts. If the participants overlooked this and did not distinguish capacity from performance, it would have crucial consequences. If the assessment results indicated that Mrs. Hansen had the capacity to make her own food, she might be left alone to do that task. In reality, she might not actually perform the task, due to initiative or motivation issues, hence leading to malnutrition issues or even worse, death. So the question is whether the standardized tools for measuring cognition currently applied within OT focus on capacity rather than performance and if so, how OTs might move towards a more performance–based practice? On the other hand, does implementing observation–based assessment necessarily fix this issue? Do not they also only display a small window into a clients' life, and how they performed the occupations at that specific time? The performance might very well differ once the clients are left alone in their context.

The conflict of the standardized assessments not being good enough but still choosing to use them

The standardized assessment tools preferred by the participants were tools perceived as time efficient, easy to manage and by request by their colleagues. They participants emphasized that they needed tools that were quick and easy to manage, as reported in previous studies [1,4,6,8,11,13–16]. The participants did however reflect upon the results of these assessments and for what they could be used. Some participants even went so far as to say that they could not be used for anything and that they had to assess other aspects anyway, that could not be placed within the tests or questionnaires. They had to *'clutter on the side'*. Do OTs feel they have to do so because the assessments will not give them the information they need? If so, why do they continue to use those assessments, when they have the perception that the results are not sufficient and that they have to add to the assessment results? The disjunction between what the OTs do and what they report they do has been labeled 'underground practice [8]. In one way, the desktop assessments seem to be an alibi for the participants. 'Yes, we use standardized assessments, and they are- …' and this could be linked to the previous paradigm, emphasizing changes in impairment level [23–25,52]. However, could adding a standardized observational assessment in their practices contribute to the OTs perception of what is essential in the assessment process? Would they still feel the need to use desktop assessments to the same degree? Just like in previous studies [53], several participants commented on the fact that going through various desktop assessments could be quite stressful for their clients. To be 'exposed to' the assessments, as several participants call it, might lead to pressure to perform and the stress might negatively affect the results. It has been documented that the assessment process might be an emotional endeavor for clients [16,53], and feelings such as shame, irritation, pride and relief have been described [53]. In addition, OTs have experienced increased difficulty engaging clients in assessments that were not specific to occupational therapy, and greater success when using occupation–based assessments [16]. As the participants in this study also highlighted experiences where clients were influenced negatively by feelings of stress in the assessment process, it might be interesting to evaluate whether greater use of assessments of occupational performance could relieve some of those feelings, lead to more engagement in the assessment process, and thus produce more reliable assessment results.

Quite a few participants questioned how the standardized screening assessment results were used, and what consequences they might have for clients. Currently, there is a lot of focus on the demographic changes within the Norwegian population and people with dementia are a rapidly growing group. Ageing and Health [46] have developed a compilation of tests used as part of diagnosing dementia within municipal health care; Assessment tool for primary care. The MMSE [43] and Clock Drawing test [44] are two of the tools in the compilations that is often performed

by OTs. Due to the status Ageing and Health [46] have in the Norwegian health care system, many OTs might trust their judgement, without having to reflect upon the usability of the tools themselves, as Ageing and Health have for many years focused on competence development of services for elderly people [46]. Some participants commented that the standardized assessment tools and questionnaires that the compilation consists of, have a reductionist focus and thus reduce clients into body functions and structures rather than having the holistic occupational perspective of the individual, which the profession ascribes to [54,55].

Another issue influencing what tools being preferred by the participants, could be the fact that OT practitioners in Norway report to the various OT schools the tools they expect the OT students to have knowledge about when they come for clinical placements. As a result, the schools have several of the assessments, such as the MMSE [43] and the Clock Drawing test [44] in their curricula. So, what responsibility should the OT schools take in this regard? By teaching students methods and tools that are not supported by sound OT theoretical foundations, nor demonstrate sufficient psychometric properties, are the schools giving the students confidence to later critically reflect on current practices?

The conflict of living up to 'everybody's' expectation of what OTs' responsibilities are when it doesn't match their own

Several participants stated that they performed various assessments due to the expectations from 'everybody', such as doctors, case managers, colleagues, clients or caretakers and this have also previously been reported as influencing OT practices [23,26,27,52,56]. In addition, the participants had expectations of themselves, related to the wish of working in a more occupation–based manner. The referrals they received largely defined the nature of the responsibilities of the OTs, as well as what they would chose to do during their workdays. Specifically, the participants that worked as the only OT in the municipality stated this as a challenge, as they felt that they had to do 'everything' others expected. That OTs take the responsibility of doing the tasks that nobody else sees as their responsibility has been labeled as 'gap-filling' [56], but why is it that the OTs feel compelled to do that? Has the OT profession traditionally not been good enough to market itself [57,58] as there are still so many expectations of what the responsibilities of OT are? The participants reflected upon wanting to do their best for the clients but at the same time, they did not want to cause trouble for themselves with their colleagues by not doing what was expected of them. This has previously been described as the professional image dilemma [27]. Mattingly and Fleming [27] described how OTs expressed concern about how a treatment activity might appear; whether the treatment would be seen as 'professional' enough in the eyes of their colleagues [27]. Are OTs still facing the dilemma where everyday occupations are not considered 'scientific' enough and could that be a reason for not standing up to all the expectations and emphasizing an occupational performance perspective? Several participants commented that there was a misconception among their colleagues of OT competence, but whose responsibility is it to correct that misconception? Through emphasizing what lies within the frames of the education, the foundation of the profession and the power of occupation [59,60], could OTs inform and educate their colleagues if they lack the proper understanding of OT? Could it be that the reason that other people still, to a certain degree, define what an OT should do is because the OTs themselves *do not*, as previously argued by Gooder [61]?

The participants did report that there was a need for development of competence on how to treat clients with cognitive impairments in the municipal health services, not only among OTs but also for the entire health service. They related the need to one of the aims in the Coordination reform, namely the development of competence in municipality services [49]. Some participants questioned when the development would commence, when they would get the opportunity to obtain new competence. They felt that they had received new responsibilities but not the tools nor competence to deal with them, and this seemed to have led to some frustrations and stress. They perceived their daily chores as difficult and said that if they only had more time, resources and competence, they would be able to do a better job. A recent study investigating the practice of Norwegian OTs found that reasons OTs do not use standardized assessments are lack of knowledge and materials [15]. Looking at the new governmental guidelines, emphasizing new responsibilities in the municipalities, in addition to the fact that OT will be statutory in municipalities from 2020; the time might be right for OTs to try something new and dare to go beyond what they have traditionally done in the municipalities. In addition, more emphasis on marketing OT, as has been proposed for a long time [57,58], might be long overdue, especially in the municipalities. As many participants reported, engaging in

professional development was challenging, as they were the only OT in their municipalities, being responsible for everything, as well as having no one to discuss with or engage in development with. It is said, however, that great opportunities lie in times of change [58]. So, with the changing demography and the new governmental propositions, it will be interesting to see how the profession, and the role of OTs in the municipalities, will develop in the years to come.

Strengths and limitations of the study

This article presented results from 14 individual interviews with OTs in Norwegian municipalities. All participants worked in municipal service and with clients with cognitive impairments, although they had somewhat differing work settings. Some worked specifically with clients with dementia, some with rehabilitation services and some in more traditional roles, emphasizing home modifications and assistive technology. Nevertheless, they had similar experiences and challenges related to their work, which have been emphasized in this study.

The fact that there were only female participants could have had an impact on the results, however, there is a majority of female OTs in Norway and as participation in this study was voluntary, it was not possible to influence that as only female OTs responded and wanted to participate.

As this study had a qualitative design, the aim was not to generalize and state how the practice *is* in municipal service, rather it was to investigate and get a deeper understanding of the 14 OTs experiences of their practices. However, other OTs might be able to relate and recognize some of the experiences from their own practices. The authors have been striving for being transparent by describing the process of analysis in detail.

The topic of interest in this study was related to assessment of clients with cognitive impairment in Norwegian municipalities and the invitation for participation in the study emphasized that topic in the introductory text. The 14 OTs that participated were thus sufficiently interested to want to be interviewed on this topic and might be more engaged in it than other OTs. That was, however, also the aim; to reach those engaged in this topic and get an understanding of the challenges they deal with on a daily basis.

Implications for practice and future research

The results of this study illustrate that the participants worked with various conflicts every day. They reflected upon the utility of the assessment tools they used and that they needed something more, but they still continued to use them. They reported that they were not always conscious of their choices and that their practices were influenced by other peoples' perceptions of OTs' responsibilities. With the changes in the Norwegian population in the years to come and the implications that will have on health services, there is a need to evaluate the directions in which the profession should develop in the future.

Related to assessments, it is important to reflect upon the usability of the standardized assessment tools chosen by the OTs as they reported that the results were not sufficient and that they had to add more information in the margins. If OTs are to work evidence based, there is a need to implement more standardized assessments that focus on the core of OT; the occupation based perspective. Working evidence based is not compatible with 'cluttering' in the margins of standardized assessments.

There is, in not only Norway but also internationally, a divergence of opinion about what the core of OT is and it might benefit the profession to unite and return to the core, namely the occupational perspective.

This study invites further questions such as:

- if OTs implement more frequent use of standardized observational assessment tools, would they still feel the need to use the impairment focused assessments to the extent they are used today?
- how OTs can market themselves in order for 'everybody'(the colleagues of the OTs) to get knowledge of OT competences?

Conclusion

The aim of this study was to investigate municipal OTs experiences working with assessment of clients with cognitive impairments. The overall conclusions of this study indicate that the OTs face several conflicts in their practices. They have to make choices on a daily basis that are influenced by not only what they view as beneficial for their clients but also what is feasible in their practice. They value being occupation based, but when it comes to the assessment process they choose to keep using the impairment based screening tools, although they are very critical about the usefulness of the results. They expressed the need to engage in professional development related to assessments; however, they found it difficult, as they perceived their daily workloads to be hindering them from doing so. This study suggests that the conflicts

influenced the OTs choices of using occupation based standardized assessment tools, which are needed in order for the OTs in municipal practice to work in line with evidence based practice

Disclosure statement

The authors report no conflicts of interest.

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Article III: The power of observation. Occupational therapists experiences of doing observations when assessing people with cognitive impairments

Not included, as article is still under review.

Appendix 1

Databehandleravtale etter personopplysningsloven

NB: Les veilederen på www.datatilsynet.no/databehandler

Databehandleravtale

I henhold til personopplysningslovens § 13, jf. § 15 og personopplysningsforskriftens kapittel 2.

mellom

.....Høgskolen i Gjøvik.....
behandlingsansvarlig

og

.....Norsk Ergoterapeutforbund.....
databehandler

1. Avtalens hensikt

Avtalens hensikt er å regulere rettigheter og plikter etter Lov av 14. april 2000 nr. 31om behandling av personopplysninger (personopplysningsloven) og forskrift av 15. desember 2000 nr. 1265 (personopplysningsforskriften). Avtalen skal sikre at personopplysninger om de registrerte ikke brukes urettmessig eller kommer uberettigede i hende.

Avtalen regulerer databehandlers bruk av personopplysninger på vegne av den behandlingsansvarlige, herunder innsamling, registrering, sammenstilling, lagring, utlevering eller kombinasjoner av disse.

2. Formål

Her skal det redegjøres for formålet med databehandleravtalen. Herunder:

- hvilke personopplysninger som skal behandles

I forbindelse med distribuering av spørreskjema vil Norsk Ergoterapiforbund sette inn og benytte epost adresser til sine medlemmer som er registrert som ansatte i Norske kommuner i databasen hvor spørreskjemaet er utformet.

- hvilke behandlinger som omfattes av avtalen

Personopplysningene skal kun benytte i forbindelse med distribuering av spørreskjema. Det vil bli sendt ut en invitasjonsmail og to purremailer i løpet av en to ukers periode, våren 2014.

- hva som er rammene for databehandlers håndtering av personopplysninger

Personopplysningene vil bli lagret i databasen så lenge undersøkelsen pågår, to uker, og deretter fjernes fra databasen. Dette vil bli gjort sentralt i Ergoterapiforbundet. Resultatene fra undersøkelsen vil lagres i Ergoterapeutforbundets bruker i Easyfact inntil studien er ferdig, 01.07.14.

Ergoterapiforbundet skal ikke benytte undersøkelsen eller data fra undersøkelsen til annet enn det som var hensikten når undersøkelsen ble utarbeidet. Alt materiale som kommer ut fra undersøkelsen er Høgskolen i Gjøvik sin eiendel og skal kun behandles der.

3. Databehandlers plikter

Databehandler skal følge de rutiner og instrukser for behandlingen som behandlingsansvarlig til enhver tid har bestemt skal gjelde.

Databehandler plikter å gi behandlingsansvarlig tilgang til sin sikkerhetsdokumentasjon, og bistå, slik at behandlingsansvarlig kan ivareta sitt eget ansvar etter lov og forskrift.

Behandlingsansvarlig har, med mindre annet er avtale eller følger av lov, rett til tilgang til og innsyn i personopplysningene som behandles og systemene som benyttes til dette formål. Databehandler plikter å gi nødvendig bistand til dette.

Databehandler har taushetsplikt om dokumentasjon og personopplysninger som vedkommende får tilgang til iht. denne avtalen. Denne bestemmelsen gjelder også etter avtalens opphør.

4. Bruk av underleverandør

Dersom databehandler benytter seg av underleverandør eller andre som ikke normalt er ansatt hos databehandler skal dette avtales skriftlig med behandlingsansvarlige før behandlingen av personopplysninger starter. Samtlige som på vegne av databehandler utfører oppdrag der bruk av de aktuelle personopplysningene inngår, skal være kjent med databehandlers avtalemessige og lovmessige forpliktelser og oppfylle vilkårene etter disse.

Det benyttes ingen underleverandør i dette prosjektet.

5. Sikkerhet

Databehandler skal oppfylle de krav til sikkerhetstiltak som stilles etter personopplysningsloven og personopplysningsforskriften, herunder særlig personopplysningslovens §§ 13 – 15 med forskrifter. Databehandler skal dokumentere rutiner og andre tiltak for å oppfylle disse kravene. Dokumentasjonen skal være tilgjengelig på behandlingsansvarliges forespørsel.

Avviksmelding etter personopplysningsforskriftens § 2-6 skal skje ved at databehandler melder avviket til behandlingsansvarlig. Behandlingsansvarlig har ansvaret for at avviksmelding sendes Datatilsynet.

6. Sikkerhetsrevisjoner

Det skal gjennomføres en risikovurdering av systemet i forhold til Personvernloven før prosjektet starter.

7. Ansvarsforhold

Ergoterapiforbundet har ansvar for å distribuere spørreskjema, motta svarene fra deltagerne, sammenfatte svarene og sende det over til Høgskolen i Gjøvik.
Høgskolen i Gjøvik har ansvar for å utarbeide spørreskjema, analysere data og publisere resultatene.

8. Avtalens varighet

Avtalen gjelder så lenge databehandler behandler personopplysninger på vegne av behandlingsansvarlig til ____01.07.2014_____

Ved brudd på denne avtale eller personopplysningsloven kan behandlingsansvarlig pålegge databehandler å stoppe den videre behandlingen av opplysningene med øyeblikkelig virkning

Avtalen kan sies opp av begge parter med en gjensidig frist på ___1mnd___, jf. punkt 8 i denne avtalen.

9. Ved opphør

Ved opphør av denne avtalen plikter databehandler å tilbakelevere alle personopplysninger som er mottatt på vegne av den behandlingsansvarlige og som omfattes av denne avtalen.

Databehandler skal slette eller forsvarlig destruere alle dokumenter, data, disketter, cd-er mv, som inneholder opplysninger som omfattes av avtalen slik at data ikke kan gjenopprettes. Dette gjelder også for eventuelle sikkerhetskopier.

Så snart spørreskjemaet og purremailer er sendt ut til deltagerne skal personopplysningene slettes fra dokumentet som er utarbeidet og lagret i Easyfact. Når data er transportert over i excel og sendt Høgskolen i Gjøvik for behandling skal hele spørreskjema slettes fra Ergoterapiforbundets område i Easyfact.

Databehandler skal skriftlig dokumentere at sletting og eller destruksjon er foretatt i henhold til avtalen innen rimelig tid etter avtalens opphør.

10. Meddelelser

Meddelelser etter denne avtalen skal sendes skriftlig til:
Norsk Ergoterapiforbund v/Karl Erik Tande Bjerkaas
Høgskolen i Gjøvik v/Linda Stigen

Kontaktpersoner i prosjektet er Karl Erik Tande Bjerkaas i Norsk Ergoterapeutforbund og Linda Stigen ved Høgskolen i Gjøvik. Ved behov nærmeste overordnede.

11. Lovvalg og verneting

Avtalen er underlagt norsk rett og partene vedtar Gjøvik tingrett som verneting. Dette gjelder også etter opphør av avtalen.

Denne avtale er i 2 – to eksemplarer, hvorav partene har hvert sitt.

Gjøvik, 11.04.14
Sted og dato

Behandlingsansvarlig	Databehandler
.....	.....
(underskrift)	(underskrift)

Appendix 2

Avtaleskisse – databehandleravtale etter personopplysningsloven

NB: Les veilederen på www.datatilsynet.no/databehandler

Databehandleravtale

I henhold til personopplysningslovens § 13, jf. § 15 og personopplysningsforskriftens kapittel 2.

mellom

.....Høgskolen i Gjøvik.....

behandlingsansvarlig

og

.....Easyfact.....

databehandler

1. Avtalens hensikt

Avtalens hensikt er å regulere rettigheter og plikter etter Lov av 14. april 2000 nr. 31om behandling av personopplysninger (personopplysningsloven) og forskrift av 15. desember 2000 nr. 1265 (personopplysningsforskriften). Avtalen skal sikre at personopplysninger om de registrerte ikke brukes urettmessig eller kommer uberettigede i hende.

Avtalen regulerer databehandlers bruk av personopplysninger på vegne av den behandlingsansvarlige, herunder innsamling, registrering, sammenstilling, lagring, utlevering eller kombinasjoner av disse.

2. Formål

Her skal det redegjøres for formålet med databehandleravtalen. Herunder:

- hvilke personopplysninger som skal behandles

I forbindelse med distribuering av spørreskjema vil Norsk Ergoterapiforbund sette inn og benytte epost adresser til sine medlemmer som er registrert som ansatte i Norske kommuner i databasen hvor spørreskjemaet er utformet.

- hvilke behandlinger som omfattes av avtalen

Personopplysningene skal kun benytte i forbindelse med distribuering av spørreskjema. Det vil bli sendt ut en invitasjonsmail og to purremailer i løpet av en to ukers periode, våren 2014.

- hva som er rammene for databehandlers håndtering av personopplysninger

Personopplysningene vil bli lagret i databasen så lenge undersøkelsen pågår, to uker, og deretter fjernes fra databasen. Dette vil bli gjort sentralt i Ergoterapiforbundet. Resultatene fra undersøkelsen vil lagres i databasen til Easyfact

Når undersøkelsen er utført skal Easyfact slette alle data og koblinger som kan identifisere deltagerne i studien, fra sin server. Slettingen skal være gjennomført innen 1.9.2014. Slettingen vil medføre manuelt arbeid som faktureres Høyskolen i Gjøvik v/ Linda Stigen.

3. Databehandlers plikter

Databehandler skal følge de rutiner og instrukser for behandlingen som behandlingsansvarlig til enhver tid har bestemt skal gjelde.

Databehandler plikter å gi behandlingsansvarlig tilgang til sin sikkerhetsdokumentasjon, og bistå, slik at behandlingsansvarlig kan ivareta sitt eget ansvar etter lov og forskrift.

Behandlingsansvarlig har, med mindre annet er avtale eller følger av lov, rett til tilgang til og innsyn i personopplysningene som behandles og systemene som benyttes til dette formål. Databehandler plikter å gi nødvendig bistand til dette.

Databehandler har taushetsplikt om dokumentasjon og personopplysninger som vedkommende får tilgang til iht. denne avtalen. Denne bestemmelsen gjelder også etter avtalens opphør.

Easyfact har tilgang til datamateriale men har ikke tillatelse til å benytte materiale. Easyfact plikter å slette alt fra sin server senest 01.09.14.

4. Bruk av underleverandør

Dersom databehandler benytter seg av underleverandør eller andre som ikke normalt er ansatt hos databehandler skal dette avtales skriftlig med behandlingsansvarlige før behandlingen av personopplysninger starter. Samtlige som på vegne av databehandler utfører oppdrag der bruk av de aktuelle personopplysningene inngår, skal være kjent med databehandlers avtalemessige og lovmessige forpliktelser og oppfylle vilkårene etter disse.

5. Sikkerhet

Databehandler skal oppfylle de krav til sikkerhetstiltak som stilles etter personopplysningsloven og personopplysningsforskriften, herunder særlig personopplysningslovens §§ 13 – 15 med forskrifter. Databehandler skal dokumentere rutiner og andre tiltak for å oppfylle disse kravene. Dokumentasjonen skal være tilgjengelig på behandlingsansvarliges forespørsel.

Avviksmelding etter personopplysningsforskriftens § 2-6 skal skje ved at databehandler melder avviket til behandlingsansvarlig. Behandlingsansvarlig har ved behov ansvar for at avviksmelding sendes Datatilsynet.

Databehandler sørger for kryptering på spørreskjema, gjennom bruk av https: kobling.

6. Sikkerhetsrevisjoner

Databehandler jobber kontinuerlig med risikovurdering av systemet.

7. Ansvarsforhold

Easyfact har ansvar for å stille programvare tilgjengelig for gjennomføring av prosjektet i tillegg til å slette data fra sin server etter at når prosjektet er avsluttet 01.07.14. Easyfact har videre ansvar for å manuelt slette alle data som kan identifisere deltagere i studien etter gjennomført datainnsamling, senest 01.09.14.

Høgskolen i Gjøvik har ansvar for å utarbeide spørreskjema, analysere data og publisere resultatene.

8. Avtalens varighet

Avtalen gjelder så lenge databehandler behandler personopplysninger på vegne av behandlingsansvarlig, til 1.9.2014.

Ved brudd på denne avtale eller personopplysningsloven kan behandlingsansvarlig pålegge databehandler å stoppe den videre behandlingen av opplysningene med øyeblikkelig virkning

Avtalen kan sies opp av begge parter med en gjensidig frist på _1mnd, jf. punkt 8 i denne avtalen.

9. Ved opphør

Ved opphør av denne avtalen plikter databehandler å tilbakelevere alle personopplysninger som er mottatt på vegne av den behandlingsansvarlige og som omfattes av denne avtalen.

Databehandler skal slette eller forsvarlig destruere alle dokumenter, data, disketter, cd-er mv, som inneholder opplysninger som omfattes av avtalen. Dette gjelder også for eventuelle sikkerhetskopier.

Tidspunkt for sletting av data er definert tidligere i avtaleteksten.

Databehandler skal skriftlig dokumentere at sletting og eller destruksjon er foretatt i henhold til avtalen innen rimelig tid etter avtalens opphør.

10. Meddelelser

Meddelelser etter denne avtalen skal sendes skriftlig til:
Easyfact v/Anders Kjønnøy
Høgskolen i Gjøvik v/Linda Stigen

Kontakpersoner i prosjektet:
Anders Kjønnøy, Easyfact
Linda Stigen, Høgskolen i Gjøvik

11. Lovvalg og verneting

Avtalen er underlagt norsk rett og partene vedtar Gjøvik tingrett som verneting. Dette gjelder også etter opphør av avtalen.

***

Denne avtale er i 2 – to eksemplarer, hvorav partene har hvert sitt.

Sted og dato
Gjøvik, 11.04.14

Behandlingsansvarlig	Databehandler
(underskrift)	(underskrift)

Appendix 3

Undersøkelse: Hvordan kartlegger og behandler kommuneergoterapeuter kognitiv funksjon?

Mitt navn er Linda Stigen. Jeg er ergoterapeut og stipendiat ved Høgskolen i Gjøvik. Jeg ønsker å invitere deg til å delta i en spørreundersøkelse om kartlegging og intervensjon av kognitiv funksjon hos brukere du har kontakt med. Selv om du ikke benytter noen standardiserte redskaper eller tester for å kartlegge dine brukere, vil jeg sette pris på at du tar deg tid til å svare på undersøkelsen.

Denne undersøkelsen er en del av et forskningsprosjekt som utføres ved ergoterapiutdanningen på Høgskolen i Gjøvik. Hensikten med undersøkelsen er å få en oversikt over hvordan kommuneergoterapeuter i Norge kartlegger og behandler kognitiv funksjon hos brukere i kommunene. I denne undersøkelsen defineres kognitiv funksjon som evnen til å sanse, organisere, manipulere og integrere ny informasjon med tidligere erfaringer for å planlegge, strukturere og utføre målrettet aktivitet.

Undersøkelsen distribueres fra Norsk Ergoterapeutforbund til medlemmene. Deltagelse i denne studien er frivillig og ingen deltagere vil kunne gjenkjennes. Ved å gå inn på linken nedenfor samtykker du til å delta. Materialet vil bli lagret anonymt i databasen hvor spørreskjemaet er utarbeidet og slettes ved prosjektslutt, senest 01.09.2030.

Det er ikke mulig å mellomlagre svarene i spørreskjemaet for deretter å gå tilbake og fullføre på et senere tidspunkt. Når du har åpnet linken ber vi deg fullføre undersøkelsen. Undersøkelsen er åpen frem til 7.mai og består av 22 spørsmål. Det vil ta ca. 5-7 min å gjennomføre undersøkelsen.

Takk for at du tar deg tid til å svare på mine spørsmål!

Med vennlig hilsen
Linda Stigen, stipendiat, Høgskolen i Gjøvik,
epost: linda.stigen@hig.no mob: 93223019.

Her kan du svare på undersøkelsen.

1. Kjønn?
    a. Mann
    b. Kvinne

2. Når var du utdannet som ergoterapeut?

3. Hvor mange år har du jobbet som ergoterapeut?

4. Hvor mange innbyggere er det i kommunen (event. bydelen) hvor du jobber?

5. Hvor mange ergoterapeuter er dere i kommunen (event. bydelen) hvor du jobber?

6. Hvilke brukere jobber du med? (Mulig å velge flere svaralternativer)
    a. Personer med hjerneslag
    b. Personer med demens
    c. Personer med psykiske problemer
    d. Personer med traumatiske hjerneskader
    e. Personer med Cerebral Parese
    f. Personer med utviklingshemminger
    g. Personer med autisme
    h. Personer med progredierende nevrologiske sykdommer som MS, Parkinson
    i. Personer med uspesifisert kognitiv svikt
    j. Annet, spesifiser

7. Innen hvilket felt jobber du? (Mulig å velge flere svaralternativer)
    a. Med personer som bor i institusjon
    b. Med hjemmeboende personer
    c. I administrativ stilling
    d. I kompetansetjeneste
    e. Annet, spesifiser

8. Hvilken helseregion jobber du i?
    a. Helse Nord
    b. Helse Midt
    c. Helse Vest
    d. Helse Sør-Øst

9. I denne undersøkelsen defineres kognitiv funksjon som evnen til å sanse, organisere, manipulere og integrere ny informasjon med tidligere erfaringer for å planlegge,

strukturere og utføre målrettet aktivitet. Inngår kartlegging av kognitiv funksjon i din jobb?

a. Ja
b. Nei

(Hvis du svarte nei her, hopp til spørsmål 16)

10. Hvis ja, hvilke områder av kognitiv funksjon kartlegger du? (Mulig å velge flere svaralternativer)
    a. Sansing
    b. Oppmerksomhet
    c. Hukommelse
    d. Organisering
    e. Planlegging
    f. Problemløsning
    g. Handling
    h. Annet, spesifiser

11. Hvis ja, hvordan kartlegger du kognitiv funksjon? (Mulig å velge flere svaralternativer)
    a. Samtale
    b. Semistrukturert intervju
    c. Strukturert intervju
    d. Standardiserte kartleggingsredskaper
    e. Observasjon av daglige aktiviteter
    f. Annet, spesifiser

12. Hvis ja, benytter du noen av de følgende kartleggingsredskaper for å kartlegge kognitiv funksjon? (Mulig å velge flere svaralternativer)
    a. Mini Mental Status Evaluering (MMSE-NR)
    b. Klokketesten
    c. Assessment of Motor and Process Skills (AMPS)
    d. Arnadottir Occupational Neurobehavioural Evaluation (A-ONE)
    e. Dynamic Loewenstein Occupational Therapy Cognitive Assessment (D-LOTCA)
    f. Sunnaas kjøkkenobservasjon
    g. Perceive, Recall, Plan and Perform system of task analysis (PRPP)
    h. Rivermead Memory Behavioural test
    i. Test of Playfullness (ToP)
    j. Trandex
    k. Annet, spesifiser

13. Hva er grunnen til at du velger å bruke standardiserte kartleggingsredskaper?
    a. For å få mer pålitelige resultater
    b. For å kunne evaluere effekten av intervensjon
    c. Det gir et bedre grunnlag for å igangsette tiltak
    d. Annet, spesifiser

14. Hva er grunnen til at du velger å ikke benytte standardiserte kartleggingsredskaper? (Mulig å velge flere alternativer)
    a. Testene vil ikke gi svar på det jeg lurer på
    b. Er ikke tradisjon for det på arbeidsplassen
    c. Ønsker ikke å utsette mine brukere for testing
    d. Har ikke tilgang til materialer
    e. Mangler kompetanse
    f. Tidsmangel
    g. Annet, spesifiser

15. Igangsetter du tiltak/ intervensjoner for personer med kognitiv svikt i ditt arbeid?
    a. Ja
    b. Nei

16. Hvis ja, hvilke tiltak igangsettes? (Mulig å velge flere svaralternativer)
    a. Implementering av tekniske hjelpemidler
    b. Implementering av velferdsteknologi
    c. Trening av aktiviteter i dagliglivet
    d. Trening av kognitive funksjoner
    e. Tilrettelegging av omgivelser
    f. Pårørendearbeid
    g. Annet, spesifiser

17. Hva er den vanligste grunnen til at tiltakene du nevnte i spørsmål 16 igangsettes? (Mulig å velge flere svaralternativer)
    a. Kartlegging tilsa at det var relevant
    b. Forventninger fra brukere
    c. Forventninger fra pårørende
    d. Forventninger fra kolleger/ samarbeidspartnere
    e. Begrensning i tid og ressurser
    f. Annet, spesifiser

18. Hvilke tiltak skulle du ønske å jobbe med ideelt sett? (Mulig å velge flere svaralternativer)
    a. Implementering av tekniske hjelpemidler
    b. Implementering av velferdsteknologi

c. Trening av aktiviteter i dagliglivet
d. Trening av kognitive funksjoner
e. Tilrettelegging av omgivelser
f. Pårørendearbeid
g. Annet, spesifiser

19. Har du hørt om the Perceive, Recall, Plan and Perform System of task analysis (PRPP)?

a. Ja
b. Nei

20. Hvis ja, hvordan har du fått det? (Mulig å velge flere svaralternativer)

c. Deltatt på PRPP kurs
d. Deltatt på undervisning (fagdager, seminar, konferanser el.l)
e. Lest om det
f. Gjennom kolleger
g. Gjennom utdanningen
h. Annet, spesifiser

21. Dersom du har gått PRPP kurs, kunne du være interessert i å delta i et individuelt intervju for å dele dine erfaringer, positive så vel som negative, med å skulle implementere og benytte det i ditt arbeid?

Hvis ja, ta kontakt med undertegnede på mail for å avtale tid for intervju: linda.stigen@hig.no
Nei

22. Helt til slutt; har du noe å tilføre som ikke har kommet frem gjennom spørreskjemaet?

Tusen takk for din deltagelse!

Appendix 4

Forespørsel om deltagelse i forskningsprosjekt: «Hvordan arbeider kommuneergoterapeuter med brukere med kognitiv svikt».

Tusen takk til deg som deltok i spørreskjemaundersøkelsen *«Hvordan kartlegger og behandler kommuneergoterapeuter kognitiv funksjon?»* som ble distribuert via Ergoterapeutforbundet i mai 2014. Mitt navn er Linda Stigen og jeg er doktorgradsstipendiat ved ergoterapiutdanningen på Høgskolen i Gjøvik, som er ansvarlig for prosjektet.

Dette er en henvendelse til deg om å delta i en oppfølgingsstudie for å undersøke nærmere hvordan ergoterapeuter arbeider med kognitiv funksjon i kommunene.

Jeg inviterer deg til å delta i et individuelt intervju på ca. 1 time, for å høre om dine erfaringer og refleksjoner knyttet til ditt arbeid med brukere med kognitiv svikt.

Det vil bli gjort lydopptak av intervjuet. Jeg håper at du i etterkant vil ha anledning til å lese utskriften etter intervjuet for å sikre at jeg har oppfattet det du sa slik du mente det. Tid og sted for intervju vil bli avtalt individuelt, men vil skje i løpet av 1.halvår 2015.

Alle personopplysninger vil bli behandlet konfidensielt og kun være kjent for autoriserte personer i prosjektet. Deltagelse er frivillig og du har når som helst anledning til å trekke deg fra forskningsprosjektet. Dersom du velger å gjøre dette vil allerede innsamlet informasjon vedrørende deg bli slettet. Innsamlede opplysninger vil bli anonymisert underveis og slettet ved prosjektslutt, senest 01.09.2020. Deltakerne i prosjektet vil bli anonymisert i artiklene og avhandlingen som skal skrives, slik at du ikke vil være mulig å kjenne igjen.

Dersom du ønsker å delta, vennligst signer på samtykkeerklæringen under og returner til undertegnede på mail eller via post, innen 19.12.14. Alle som ønsker å delta vil få en tilbakemelding fra undertegnede, men det er ikke sikkert at vi har anledning til å intervjue alle.

Dersom det er noe du lurer på, er du velkommen til å ta kontakt via e-post eller telefon.

Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

Vennlig hilsen

Linda Stigen
PhD stipendiat
Høgskolen i Gjøvik
Teknologiveien 22
2815 Gjøvik

e-post: Linda.stigen@hig.no
mob: 93223019

05.12.2014

Samtykkeerklæring

Jeg har fått informasjon om forskningsprosjektet «Hvordan arbeider kommuneergoterapeuter med brukere med kognitiv svikt?» og samtykker til å delta.

Jeg foretrekker at du kontakter meg for å avtale tid og sted for intervju via:

Telefon:

Epost:

_____ _____

Underskrift Dato

05.12.2014

Appendix 5

Intervjuguide «Hvordan arbeider kommuneergoterapeuter med brukere med kognitiv svikt»

«Tusen takk for at du er villig til å stille opp til dette intervjuet. Dette er en delstudie av et doktorgradsprosjekt hvor hensikten er å undersøke hvordan kommuneergoterapeuter i Norge arbeider med kognitiv funksjon hos brukere i kommunene.

Hensikten med dette intervjuet er å høre om dine erfaringer og refleksjoner knyttet til ditt arbeid med brukere som kommuneergoterapeut.

Jeg har noen spørsmål som jeg ønsker at vi kommer innom i løpet av denne samtalen som jeg tenker skal vare ca. en time. Jeg vil sette pris på at du deler positive og negative erfaringer. All informasjon du kommer med vil bli anonymisert slik at du ikke vil kunne kjennes igjen.

Dersom det er noe du tenker er viktig å meddele og jeg ikke kommer inn på det gjennom mine spørsmål er du hjertelig velkommen til å ta det opp.

Dersom du på et tidspunkt ønsker å avbryte intervjuet har du anledning til å gjøre det, uten å oppgi noen grunn.

Jeg gjør lydopptak av intervjuet for å få med meg så mye som mulig. Jeg skriver ned intervjuet i etterkant og det er fint hvis du har mulighet og lyst til å lese igjennom intervjuet for å se at jeg har skrevet det ned slik du mente.

Da setter vi i gang.»

1. Hvor lenge har du jobbet som ergoterapeut?

2. Hvor lenge har du jobbet som kommuneergoterapeut?

3. **Hvilke erfaringer har du med å arbeide med kognitiv funksjon/ kognitiv svikt?**

4. **Har du erfaring fra andre arbeidsplasser hvor du har jobbet med kognitiv funksjon?**

5. **Kan du si litt om dine erfaringer med kartlegging av kognitiv funksjon?**
    a. Hvordan gjør du det?
    b. Hvilke kartleggingsredskaper bruker du?
    c. Bruker du standardiserte redskaper?
        i. Resultatene fra undersøkelsen i mai indikerer at de spesifikke redskapene MMS og klokketesten er hyppigst brukt. Hva tenker du om det?
    d. Fordeler og ulemper med bruk av kartleggingsredskaper?
    e. Bruker du observasjon? Eller samtale?

6. **Kan du si litt om dine erfaringer med intervensjon (eller tiltak) du gjør i forhold til brukere med kognitiv svikt?**

a. Har du noen eksempler på tiltak eller intervensjon?
b. Hvordan gjør du det?

7. **Er det noe mer du har lyst til å fortelle knyttet til dine arbeidsoppgaver som kommuneergoterapeut?**

Tusen takk☺

Appendix 6

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES

Harald Hårfagres gate 29
N-5007 Bergen
Norway
Tel: +47-55 58 21 17
Fax: +47-55 58 96 50
nsd@nsd.uib.no
www.nsd.uib.no
Org.nr. 985 321 884

Linda Stigen
Seksjon for helse, teknologi og samfunn Høgskolen i Gjøvik
Postboks 191
2802 GJØVIK

Vår dato: 17.03.2014 Vår ref: 37975 / 3 / JSL Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 04.03.2014. Meldingen gjelder prosjektet:

37975	*Assessment of cognitive function by occupational therapists working in municipal practice*
Behandlingsansvarlig	*Høgskolen i Gjøvik, ved institusjonens øverste leder*
Daglig ansvarlig	*Linda Stigen*

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/meldeplikt/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://pvo.nsd.no/prosjekt.

Personvernombudet vil ved prosjektets avslutning, 01.09.2020, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Katrine Utaaker Segadal

Juni Skjold Lexau

Kontaktperson: Juni Skjold Lexau tlf: 55 58 36 01
Vedlegg: Prosjektvurdering

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Personvernombudet for forskning

Prosjektvurdering - Kommentar

Prosjektnr: 37975

Jf. telefonsamtale 14.03.2014 gjelder denne tilbakemeldingen kun del 1 og 2 av prosjektet (spørreskjemaundersøkelsen og intervjuundersøkelsen). Del 3 (metodeimplementering/aksjonsforskningsdelen) vil meldes separat i eget meldeskjema i god tid før denne delen av prosjektet er planlagt igangsatt. Alternativt søkes det godkjenning fra REK, hvis dere vurderer det slik at del 3 faller under helseforskningsloven.

Utvalget informeres skriftlig om prosjektet og samtykker til deltakelse.

Revidert informasjonsskriv til spørreskjema, mottatt på e-post 12.03.2014, er godt utformet.

Informasjonsskrivet til intervjudelen av prosjektet er noe mangelfullt. Vi ber derfor om at følgende tilføyes:
- Dato for prosjektslutt, 01.09.2020.
- Deltakelse er frivillig.

Revidert informasjonsskriv skal sendes til personvernombudet@nsd.uib.no før utvalget kontaktes.

Vi legger til grunn at taushetsplikten ikke er til hinder for at prosjektet kan gjennomføres. I den grad deltakerne skal gi eksempler eller informasjon om sin arbeidshverdag, må informasjon om pasienter avgis på en slik måte at ingen kan gjenkjennes.

Easyfact benyttes til å sende ut og bearbeide data fra spørreskjema. Høgskolen i Gjøvik skal inngå skriftlig avtale med Easyfact om hvordan personopplysninger skal behandles, jf. personopplysningsloven § 15.For råd om hva databehandleravtalen bør inneholde, se Datatilsynets veileder: http://www.datatilsynet.no/Sikkerhet-internkontroll/Databehandleravtale/. Personvernombudet ber om kopi av avtalen for arkivering (sendes: personvernombudet@nsd.uib.no).

Personvernombudet legger til grunn at forsker etterfølger Høgskolen i Gjøvik sine interne rutiner for datasikkerhet. Dersom personopplysninger skal sendes elektronisk eller lagres på privat pc/mobile enheter, bør opplysningene krypteres tilstrekkelig.

Forventet prosjektslutt er 01.09.2020. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved:
- å slette direkte personopplysninger (som navn/koblingsnøkkel)
- å slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn)
- å slette lydopptak

Vi gjør oppmerksom på at også databehandler (Easyfact) må slette personopplysninger tilknyttet prosjektet i

sine systemer. Dette inkluderer eventuelle logger og koblinger mellom IP-/epostadresser og besvarelser.

List of errata

Name of candidate: Linda Stigen

Title of thesis: A multifaceted practice? An investigation of methods used by occupational therapists in municipal services when assessing persons with cognitive impairments

	Location	Error	Correction
1	Front page	A multifaceted practice An investigation of methods used by occupational therapists in municipal services when assessing persons with cognitive impairments	A multifaceted practice? An investigation of methods used by occupational therapists in municipal services when assessing persons with cognitive impairments
2	p.3	Stigen L, Bjørk E, & Lund A (2018). 'The power of observation'. Occupational therapists' experiences of doing observations when assessing people with cognitive impairments. Submitted	Stigen L, Bjørk E, & Lund A (2018). 'The power of observation'. Occupational therapists' experiences of doing observations when assessing people with cognitive impairments. Submitted to Occupational Therapy in Health Care
3	 p.1,13,14,15,16,17,18,19,20,24, 32,35,36,37,38,39,40,41,42,44, 47,48,49,54,56,58 p.21, 53 p.18,32,50 p.18,36,39,40,43,44,51,56 p.48 p.14,19,32 p.4,49,53,55 p.23,26,45,48 p.52 p.11,20,53	Language corrections leading to changes in the following words; Standardize Generalize Analyze Emphasize Utilize Categorize Specialize Organization Minimize Recognize	 Standardise Generalise Analyse Emphasise Utilise Categorise Specialise Organisation Minimise Recognise
4	 p.1,22,28,29,30,31,32,38, 44,58 p.16,18,22,29,33,39,45,58 p.24,29,43,50,53,54,56,58 p.43,48 p.39 p.29,58	Language corrections to the following words; Participants Peoples OTs Others Persons Researchers	 Participant's or participants' People's or peoples' OT's or OTs' Other's or others' Person's Researcher's
5	p.19	The three most well-known standardised occupation based assessment tools for OTs in Norway are the AMPS, Perceive, Recall, Plan and Perform system assessment (PRPP) (106) and the Arnadottir Occupational Neurobehavioral Evaluation (A-ONE) (28, 107).	The three most well-known standardised occupation based assessment tools for OTs in Norway are the AMPS, the Perceive, Recall, Plan and Perform system assessment (PRPP) (106) and the Arnadottir Occupational Neurobehavioral Evaluation (A-ONE) (28, 107).
6	p.24	Specific research questions for study I were: - Which methods do OTs use?	Specific research questions for study I were: - Which methods do OTs use?

		- Which standardised assessment tools do OTs use? - What are the reasons for their choices?	- Which standardised assessment tools do OTs use? - What are the reasons for their choices? - Is there any association between the use of certain methods and standardized assessment tools and OT's graduating year or work setting?
7	p.27	71 emailed the first author to recline participation = follow up survey developed	71 emailed the first author to decline participation = follow up survey developed
8	p.31, table 2	In the table on p.31, commas were replaced with punctuations; 41,9 33,8 13,5 10,9 50,7 24,3 14,1 10,9 14,3 35,7 71,4 14,3 14,3 21,1 21,1 47,3 10,5 63,1 21,1 15,8	 41.9 33.8 13.5 10.9 50.7 24.3 14.1 10.9 14.3 35.7 71.4 14.3 14.3 21.1 21.1 47.3 10.5 63.1 21.1 15.8