

The test encounter

A qualitative study of standardized testing in a geriatric setting

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“Much of the activity occurring during an encounter can be understood as an effort on everyone’s part to get through the occasion and all the unanticipated and unintentional events that can cast participants in an undesirable light, without disrupting the relationships of the participants.”

(Goffman, [1967] 1982:41)

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Kariann Krohne

Oslo, May 2014

List of articles

Articles 1–3

1. Krohne K, Slettebø Å, and Bergland A. Cognitive screening tests as experienced by older hospitalised patients: A qualitative study. *Scandinavian Journal of Caring Sciences*. 2011, 25(4):679–87.
2. Krohne K, Torres S, Slettebø Å, and Bergland A. Individualizing standardized tests: Physiotherapists' and occupational therapists' test practices in a geriatric setting. *Qualitative Health Research*. 2013, 23(9):1168–78.
3. Krohne K, Torres S, Slettebø Å, and Bergland A. Everyday uses of standardized test information in a geriatric setting: A qualitative study exploring occupational therapist and physiotherapist test administrators' justifications. *BMC Health Services Research*. 2014, 14:72

In the thesis, the articles are referred to by the number they have been assigned above.

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List of abbreviations

Professional groups:

OT – Occupational therapist

PT – Physiotherapist

Wards where the observations took place:

SU – Stroke unit

AG – Acute geriatric ward

Standardized tests:

MAS – Motor Assessment Scale (Carr, Shepherd, Nordholm, & Lynne, 1985)

TUG – Timed ‘Up & Go’ (Podsiadlo & Richardson, 1991)

BBS – Berg Balance Scale (Berg, Wood-Dauphinee, Williams, & Maki, 1992)

CDT – Clock Drawing Test (Critchley, [1953] 1966)

MMSE – Mini-Mental State Examination (Folstein, Folstein, & McHugh, 1975)

TMT – Trail Making Test A and B (Reitan, 1955, 1958)

List of errata

In article 2, 67 years is listed as a patient inclusion criterion – 65 years is correct.

1. Background

My first field observation of a standardized test was of a Berg Balance Scale (BBS) testing in an acute geriatric hospital ward; the therapist I followed that day asked a newly admitted fall patient if she was up for some balance training? I observed the balance training and noted towards the end that the patient was told that she had a risk of falling and that she should consider using a walker instead of crutches. However, it was not until my second observation of a BBS testing the following week that I, upon seeing the same pattern of questions, understood that it was a *test* and that the patient was scored – and that the score indicated whether the patient had a risk of falling. At that point, I remember thinking, “If I didn’t understand that it was a test the first time – how is the old patient supposed to know it is a test?”

Hospitalized geriatric patients commonly display health problems associated with a loss of functional ability: immobility, impaired vision and hearing, delirium, incontinence, degradation of memory, and a significant risk of morbidity or mortality (Brocklehurst, 2010). Due to the complex needs of this patient group, functional independence is emphasized alongside medical treatment – which implies that a comprehensive multidisciplinary approach and health assessment is required (Urdangarin, 2000). The professional contribution of occupational therapists (OT) and physiotherapists (PT) is substantial in health assessments. One source of information used by these professional groups when assessing the health of geriatric patients is standardized tests.¹ A standardized test is designed to discover and

¹ Note the distinction between standardized tests and assessments. An assessment is *the entire process of compiling information about a person and using it to make inferences about characteristics and to predict behavior* (Gregory, 2011:6). Thus, an assessment is an estimating based on observation, information, checklists, and standardized tests. Assessments combine information sources. All told, the subjective component in assessments should be absent in standardized testing (Matarazzo, 1990).

quantitatively estimate health problems by means of a standardized and neutral procedure. The primary objective of standardized tests is to estimate, screen for, and monitor potential functional impairment and to provide health care professionals with the health estimates needed to plan for treatment and rehabilitation activities (Fawcett, 2007:1–13). For instance, the first standardized test observed during fieldwork, the BBS, is developed to measure balance (indicate fall risk) among older people by assessing their physical performance of a given set of functional tasks. With regard to the project that is presented here, the design and objective of standardized tests are unheeded;² instead, standardized testing is explored as an interactional activity – an encounter between an occupational therapist or a physiotherapist and a geriatric patient. As this thesis explores standardized testing using qualitative research methods, I will provide an overview of the most relevant qualitative literature on standardized tests in the following section.

Measurement-centered qualitative research on standardized testing

Typically, health care professionals, such as physiotherapists and occupational therapists, use test scores (end scores) from standardized tests to establish an accurate baseline for intervention and to consider whether the intervention was effective (Fawcett, 2007:152). This use is referred to as outcome monitoring. In fact, a trend towards outcome monitoring and outcomes research in most health-related fields (Gerszten, 1998; Fawcett, 2007) has led to a small selection of qualitative research on the interpretation and use of standardized test outcomes, for example, in multidisciplinary teams (Greenhalgh, Flynn, Long, & Tyson, 2008; Greenhalgh, Long, Flynn, & Tyson, 2008; Tyson, Greenhalgh, Long, & Flynn, 2010; Tyson, Greenhalgh, Long, & Flynn, 2012). These studies highlight how scores are communicated

² Note also that quantitative issues, such as test theory and the psychometrical properties of standardized testing, which in brief concern the test construct as well as the measurable aspects (validity and reliability) and variables of testing (Downing & Haladyna, 2006; Fawcett, 2007; Gregory, 2011), are beyond this project's scope.

within the multidisciplinary team, to patients, and to next of kin, but most significantly how scores become part of clinical judgment and decision-making. As such, they represent the body of qualitative research that has shifted from focus on the negative social consequences of standardization (in particular, the depersonalization of care³) to focus on the knowledge standardization makes possible in the process of clinical judgment and reasoning (Atkinson, 1995; Timmermans & Almeling, 2009; White & Stancombe, 2003). For instance, Greenhalgh's and Tyson's studies on multidisciplinary teams, referenced above, do not characterize standardization as a weakness or a potential threat to individualized health care. Instead, they explore the use, influence, and implementation of standardized knowledge in the multidisciplinary teams. Characteristic of their findings are professional challenges, for example, in scoring and monitoring own patients. This latter challenge is also illustrated in Dingwall, Pinkerton, & Lindeman's study (2013) on clinicians' cognitive testing of Aboriginal Australians.

Qualitative research methods have also been used to explore standardized test development. The qualitative contribution to test development include identifying the concepts that compose tests, discussing test definitions, and generating test items (Barroso & Sandelowski, 2001; Gilgun, 2004; Lutz, Kneipp, & Means, 2009). These studies represent a rare qualitative exploration of an area in which quantitative investigations have been favored.

To date, qualitative studies targeting test-takers' or test administrators' experiences with face-to-face standardized testing are lacking.⁴ The small amount of qualitative studies that

³ *Depersonalization of care* and *loss of humanization* are terms used to signal criticism towards standardization (and bureaucratization) of health care and medicine (Timmermans & Almeling, 2009). Notice, for instance, a similar meta-critique in Frankford's (1994) study on health services research.

⁴ There is, however, a rather large body of qualitative research covering experiences and utilization of self-reported/patient-reported standardized questionnaires or outcomes measurements (see, for example, Hoy (2014) and Greenhalgh, Abhyankar, McCluskey, Takeuchi, and Velikova (2013)).

investigate patient experiences with standardized testing in health care settings (Bjorbækmo & Engelsrud, 2011; Midtbø & Hauge, 2010) highlight the test experience as possibly resulting in insecurity on the part of the test-taker. This notion of insecurity following standardized testing is also noted among persons with dementia tested with the Mini-Mental State Examination (MMSE) for research purposes (Hellström, Nolan, Nordenfelt, & Lundh, 2007).

The particular effect standardization might have on interaction in health care settings has been largely overlooked in qualitative research. Timmermans and Bergs' (2003) interest in change caused by standardization in hospitals' guidelines and expressions of locally produced standardization is an exception – and even in their research the structural constraints standardization might have on interaction are mainly overlooked. In fact, standardization identified as a constraint on interaction has received little attention within the social sciences as a whole (Bowker & Star, 2000; Brunsson & Jacobsson, 2000). One exception is the sociological investigations into the interactional facets of standardized survey interviewing (Houtkoop-Steenstra, 2000; Maynard & Schaeffer, 2000, 2002, 2006) and the work of a handful of conversation analysts who have accessed face-to-face test encounters within the field of education (Marlaire & Maynard, 1990; Maynard & Marlaire, 1992) and intellectual disability (Antaki, 1999; Antaki, Young, & Finlay, 2002). These studies demonstrate that resources of basic conversational skills are used to interact meaningfully in standardized interviewing as well as in standardized testing.

Studies indicate that the health professional–patient relationship has an effect on outcome measures (Hall, Ferreira, Maher, Latimer, & Ferreira, 2010; Kelley, Kraft-Todd, Schapira, Kossowsky, & Riess, 2014). Still, no studies have investigated the opposite which is how standardized testing might affect the health professional–patient relationship? Hence, one is

left to wonder: Are test activities not considered part of the health professional–patient relationship? In the project presented here, an assumption that the test encounter is a key meeting between patient and therapist in the process of treatment and rehabilitation is pursued and, as a result, the test encounter is explored as part of the health professional–patient relationship. This perspective required a broad approach to the field of inquiry – meaning that field observations and interview topics for this project were not limited to testing, but included other rehabilitation activities.

Standards and standardization in health care

Before proceeding to the issue of standardized tests and what they are, a short introduction to the world of standards, in general, and standardization in health care, in particular, is helpful. Standards refer to aspects of knowledge that have to do with design, quality, reporting procedures, wording, and structure (Brunsson & Jacobsson, 2000). Standards coordinate a:

[S]et of practices, actors, and situations. They intervene in a specified situation and prescribe a set of activities that should be performed in a similar way in order to achieve results comparable over time and space. (Timmermans & Berg, 2003:63)

Standardization is the process of rendering things uniform. Standards are, thus, both means and outcome of standardization (Timmermans & Berg, 2003:24), and function as a form of regulation or rule – an instrument of control which is abstract, general, and written (Brunsson & Jacobsson, 2000). Standards can, therefore, refer to railway ties, units of measurements, or a set of practices.

Standardization emerged as a movement at the turn of the last century as a response to shifts in the field of economics – the need for compatible technical innovations became evident when global trading increased (Chandler, 1977; Timmermans & Berg, 2003). At that point in time, standardization was perceived as revolutionary; the idea of implementing technical knowledge to increase efficiency and lower costs in production processes fascinated the general population, and, maybe most of all, it fascinated business men who soon associated standardized procedures with possibilities of increased income (Brunsson & Jacobsson, 2000; Timmermans & Berg, 2003). While this first wave of standardization had an almost ideological appeal⁵ amongst the general population, the general interest in standardization after World War I was low – and standardization soon lost its revolutionary appeal. Instead it was taken for granted that technicians standardized products to best suit public needs (Morman, 1989).

A common trait in the historical development of standards is the fact that quantification and quantitative methods were important parts of the standardization movement, at least in the Western world – where time, space, volume, value, distance, and weight were subjected to the movement at an early stage; the disciplines engineering, biology, medicine, and psychology followed later (Porter, 1995:21–29 and 193–216). In the disciplines, quantification often appeared as standardized measures, and these standardized measures soon became powerful means to render both nature and society objective. Thus, it is important to note that standardization was (and is) not rationalized as an end in itself (Timmermans & Almeling, 2009). Standardization, in health care, was implemented as a means to secure objective results

⁵ See, for example, descriptions on the development of Taylorism or scientific management in Morman (1989) and Timmermans and Berg (2003:10–11).

– as objectivity was believed to allow communication to overcome local interpretation, personal interests, prejudices, and the particularities of context (Porter, 1995:74).⁶

In the field of health and medicine, standardization started as a movement (often referred to as the hospital standardization movement) in the early 1900s. The primary aim of the movement was to implement a shared set of requirements in hospitals. Soon, hospital standardization became a method of controlling the medical profession's interests (Morman, 1989). The fact that the revolutionary appeal of standardization lessened in the general population did not affect the standardization movement in health and medicine, and the movement continued its work to control health and medical education and hospitals by implementing standards. It is important to note, however, that the standards implemented at that time did not interfere with the actual content of the clinician's work or with the individual hospital's autonomy (Timmermans & Berg, 2003:13).

When standardization reemerged as a topic in the field of health and medicine for the second time in the 1980s, it had newfound power as a key element in evidence-based medicine. The evidence-based medicine movement was established as a result of studies documenting great treatment variations in medical practice. The fact that medical treatment varied from place to place was seen to undermine health care professionals' credibility, and it raised questions about the cost and effectiveness of the various treatments (Timmermans & Kolker, 2004). Timmermans and Berg (2003:1–2) use cardiopulmonary resuscitation (CPR) as an example of a medical practice that before the 1980s had a varying success rate in different parts of the United States. In an attempt to avoid such variations, standardized guidelines were produced by an expert panel based on the best available scientific evidence on CPR. So, while the

⁶ See Porter (1995) for further discussions on objectivity and quantification.

earlier wave of standardization in health and medicine was about tools, training, and the introduction of general, rather than specific requirements, the central drive in the evidence-based medicine of the 1980s is more of a pedagogical innovation aimed at transforming medical decision-making (Lambert, 2006). The content of medical work, clinical practice, is pursued: *“The practice of evidence-based medicine means integrating clinical expertise with the best available external clinical evidence from systematic research”* (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996:71). Owing to the work of Cochrane (1972), Wennberg (1984; 1999), and Sackett et al. (1996), evidence-based medicine has become a strong social movement with policy goals aimed at (i) strengthening the scientific base of health care (by using scientific, aggregated data related to known outcomes) and (ii) determining the effectiveness of clinical interventions. These goals are obtained mainly through standardization (Timmermans & Berg, 2003:1–29). Consequently, standardization is offered as a solution for two major concerns in present-day health care: quality and expenditure (Sackett et al., 1996).⁷ This, logically, places standardization as a significant element in the larger context of best practice and patient care.

What is a standardized test?

A standardized test is a test developed to obtain information about certain human characteristics by way of what Timmermans and Berg (2003:25) call a procedural standard (a standard that specifies processes). In short, a standardized test in health and medicine uses specific standardized procedures to measure a given health domain (for example, balance, cognition, muscle tone) by using a:

⁷ For further reading on standardization and the development or maintenance of evidence-based medicine, see Sackett et al. (1996), Timmermans and Berg (2003), Timmermans and Mauck (2005), and Lambert (2006).

published measurement tool, designed for a specific purpose in a given population, with detailed instructions provided as to when and how it is to be administered and scored, interpretation of the scores, and results of investigations of reliability and validity. (Cole, Finch, Gowland, & Mayo, 1995:22)

A standardized test, as a face-to-face activity, works as a stimulus-response model of interaction (Foddy, 1993:12) in that all test-takers are meant to be presented with exactly the same questions and the response is registered and quantified according to a test-specific scoring system. This denotes that tests usually have a dialogic structure: a sequence of standardized questions (stimuli) and answers (responses) – the response is interpreted. Responses need not be verbal, and many tests are performance based. The test administrator is trained in the standardized delivery of questions and tasks, as well as in the interpretation of responses (Cole et al., 1995; Fawcett, 2007; Gregory, 2011).

Thus, identical criteria are used across different individuals and groups to measure a common dimension of health, to allow comparison between and within individuals and groups. (Greenhalgh, Flynn, et al., 2008:184)

While the defining feature of standardized testing might be the uniform instructions, it is also worth noting that standardization demands a context-stripping procedure, which means that the administrator must overlook the variety of contexts that might affect the test process (Mishler, 1986:22–23). In addition to the standardized procedure, the most central feature of a standardized test is that it provides measures and that the test form is the measurement instrument.

An array of tests exists in the field of health and medicine and the categorization of these tests is often based on the concept or scope measured (impairment, disability, function), the test's purpose (predictive, comparative/evaluative, discriminative), or how the testing is performed (profile, scale, index) (McDowell, 2006). The following list highlights the criteria specific to standardized tests in health care (Cole et al., 1995; Fawcett, 2007; Gregory, 2011):

- **Standardized procedure:** The administration of a standardized test is described in the instruction manual; many tests specify with considerable precision the oral instructions.
- **Behavior sample:** A behavior sample is a selection of behaviors that is used to illustrate other behaviors. The patients' responses are, in fact, interpreted as samples of behavior that are thought to generalize to other situations.
- **Scores or categories:** The test-taker's performance is quantified by a test-specific scoring system into a measurement. So, the test-taker is classified as belonging in one or the other category depending on scores.
- **Norms or standards:** The test-taker's score is interpreted by comparing it to scores obtained by others on the same test. Norm-referenced tests are tests where scores are compared to norms – which appear as a summary of test results for representative groups. Criterion-referenced tests measure what a person can do, without comparing results with others.
- **Prediction of nontest behavior:** The end goal of a test is to predict additional behavior – behavior that is other than what was directly sampled.

Timmermans and Kolker (2004) argue that the most common form of getting health care professionals to practice evidence-based medicine is through standardized guidelines. Such

guidelines are developed by consensus within guideline panels and working groups consisting of health professionals. Treatment guidelines at the hospital where data for this thesis were collected offers, among other things, instructions on which standardized tests to use. The two groups of standardized tests, or health status measures, pertinent to this project and hospital guidelines are often referred to as *cognitive tests* or *neuropsychological tests* and *physical tests* or *motor and functional activity measures*. The *cognitive tests* were administered by occupational therapists and include the MMSE, Clock Drawing Test (CDT), and Trail Making Test A and B (TMT), all of which are tests designed to measure cognitive, perceptual, sensory, and motor performance to determine the extent, locus, and behavioral consequences of brain damage (Gregory, 2011:7). The *physical tests* were administered by physiotherapists and include the BBS, Timed “Up & Go” (TUG), and Motor Assessment Scale (MAS), all of which are tests developed to measure physical function with the aim of estimating level of impairment, disability, and physical function (Cole et al., 1995:36).

The debate on standardized testing

The supporters of standardized testing in health and medicine generally position themselves within the frame and rhetoric of evidence-based medicine, arguing, for instance, that clinical *“judgment additionally informed by objective assessment processes leads to decisions and interventions that can be more readily justified and demonstrated as effective (...)”* (Stewart, 1999:417). While evidence-based medicine is established, or being established, as the *gold standard* of clinical practice (Timmermans & Berg, 2003), there are, nevertheless, two features of standardized testing that seem to provoke professionals and scholars across many fields and disciplines: First, standardized tests aim to *standardize* the judgment of particular health states. Second, standardized tests seek to *quantify* health states by assigning numbers to

describe the different levels of the health state. Coincidentally, these two features are fundamental to the justification of evidence-based medicine.

Whereas a handful of critics claim that face-to-face standardization *per se* is impossible (Bilsker & Goldner, 2002; Lee, Reynolds, & Willson, 2003; Suchman & Jordan, 1990),⁸ or highlight the local variations that occur when adopting a standardized practice (Lawton et al., 2012; Timmermans & Berg, 1997, 2003; Viterna & Maynard, 2002), the strongest opponents argue that standardized tools provide a fragmented picture of people (Bjorbækmo & Engelsrud, 2011; Kohn, 2000; Sacks, 1999; Skjervheim, 2002; Stobart, 2008). This means that standardized tests do not capture the unique characteristics of an individual (Turkstra, Coelho, & Ylvisaker, 2005); test results can document impairment, but not how the individual lives with this impairment. The same type of qualitative argument is applicable to comparative or evaluative tests – they can document change (whether a dimension of the health status has improved or worsened over time, or whether an individual or group has worse health than another), but not why change occurred (Gregory, 2011).

Standardized tests mimic, so to speak, the natural sciences in seeking to produce numbers which represent abstract health dimensions (Gregory, 2011). In fact, “*the justification for standardization lies in the logic of scientific measurement (...)*” (Maynard & Schaeffer, 2002:5). The critics (Bilsker & Goldner, 2002; Bjorbækmo & Engelsrud, 2011; Houts, 1977; Kohn, 2000; Lee et al., 2003; Midtbø & Hauge, 2010; Sacks, 1999; Skjervheim, 2002; Stobart, 2008) argue that abstracting, translating, or transforming information into quantitative representation cannot capture a person’s unique characteristics, that testing does not have

⁸ The fact that standardized data are affected by interaction is a consistent theme in Cicourel (1964, 1982) and Cicourel and Kitsuse (2006).

ecological validity,⁹ and that being measured or categorized numerically affects how you think of yourself and how you chose to live your life. A question often raised in this regard is if the quantitative classifications provided in test results enhance or restrict test-takers' opportunities?

The social consequences of testing can be seen as an advantage on one side: scores can function as door openers in employment seeking, in access to particular services, in school applications, and in insurance matters. But on the other side, scores can be seen as a hindrance: a score below a designated threshold can be used to deny an individual access to employment, treatment, or education (Timmermans & Berg, 2003:79). This Janus-faced impact of standardized testing is depicted in U.S. media coverage of standardized testing through the frequent use of the terms *fateful* and *high-stakes* testing. These terms are used to describe the indeterminate and consequential effects of standardized testing, as shown in the New York Times heading *Facing a Fateful Test, Pencils in Hand, Butterflies in Stomach* (Steinberg, 1997). The critical perspectives on testing emphasize the fact that standardized testing does not take place in a vacuum; it affects people's lives in various ways; more specifically, it can affect the choices people make and the way they think about themselves.

Critical voices on standardized testing are especially prominent in U.S. education where ability testing¹⁰ in kindergarten, schools, and universities is a large, and ever expanding, phenomenon (see Kohn, 2000; Sacks, 1999; Stobart, 2008).¹¹ A similarly heated debate on standardized testing has not been apparent in the fields of health and medicine; rather, it seems that the critical debates in these fields target evidence-based medicine as a whole (as

⁹ Ecological validity addresses the relevance of the behaviors observed and recorded in a test in relation to behaviors that occur in natural settings (Fawcett, 2007:180).

¹⁰ Ability testing is standardized testing for intelligence, aptitude, or achievement (Gregory, 2011).

¹¹ The standards-based education movement is a major force in U.S. education, and calls for measurable standards for all students (Schmoker & Marzano, 1999). There is also an outcome-based education movement.

seen in, for instance, Freshwater & Rolfe, 2004 and in Skjervheim, 2002). This suggests that despite the increasing use of standardized tests in health care and medicine, the qualitative aspects of testing are inadequately explored.

The research aim

The purpose of this project is to explore interaction in routine face-to-face standardized testing in a geriatric hospital setting. As such, the aim is to contribute to an expanded understanding of standardized testing in a setting where older patients, without much prior test experience,¹² are routinely tested with standardized tests. More specifically, this thesis aims to explore physiotherapists' and occupational therapists' test practice (what they do when they test older patients), test usage (what they do with the test information after testing), and the consequences testing might have for the old patient (how they experience being tested with a standardized test). In line with these aims, a qualitative research method was used, namely field observations and semi-structured interviews.

Outline of the thesis

This thesis focuses on occupational therapist and physiotherapist test administrators' and geriatric patients' experiences with standardized testing. The empirical data build on 170 hours of hospital fieldwork and interviews with 6 occupational therapist test administrators and 8 physiotherapist test administrators, as well as 18 geriatric patients. In this initial chapter, a delineation of standardization and standardized testing has been provided. Each of the three articles is summarized in chapter two. In chapter three, Erving Goffman's interactional framework will be applied to provide new insight into the interaction that plays out in the test

¹² As opposed to disabled people who possibly experience repeated testing. See, for instance, Bjorbækmo and Engelsruds' study from 2011.

encounter. This means that, rather than returning to the perspectives that informed the three articles, chapter three uses the resources of Goffman's conceptual framework on focused encounters (1961) to make sense of the empirical material presented in three articles as a whole. In chapter four, the focus is on how the empirical data used in this thesis were collected and analyzed. Central to the second part of the chapter are the epistemological assumptions relevant to data collection and hospital fieldwork, especially research ethics and the possibilities and limitations that hospital fieldwork entails. In the fifth and final chapter, the perspectives used in the articles are briefly revisited and research findings are discussed against the backdrop that the interactional framework presented in chapter three offers.

2. Summary of articles

Cognitive screening tests as experienced by older hospitalised patients: A qualitative study

Article 1 explores older hospitalized patients' experiences on being tested with cognitive screening tests. Drawing on fieldwork, semi-structured interviews were performed with 18 older patients who had been tested cognitively with MMSE, TMT, and CDT while hospitalized.

In this hospital setting, cognitive screening tests were administered by occupational therapists. Our findings suggest that the occupational therapists' initial presentation of the screening test is not fully understood by the older patient, leaving the patient to interpret the screening test experience in light of its specific questions and tasks. The patient might, thus, not understand the significance or the utilitarian value of testing when consent is given. The patients found the screening test strenuous, mostly due to a felt pressure to perform, but also to due to age and medical condition. Despite therapist test administrators' providing a salutogenic feedback on test performance, the patients' accounts illustrate that the patients often highlighted their problems in the test – testing might, thus, make them aware of lost cognitive skills. Even when acknowledging that they performed well in the test – they highlighted what they could have done better. In this regard, previous life achievements were often compared to present test performance, and, as such, possibly reinforced a feeling of loss of functional abilities. The patients' accounts show that feelings ranging from shame and irritation to pride and relief were stirred up after the test. Negative experiences, following what the patients themselves deemed poor test performance, seemed to trigger distress after testing. Some patients found voicing these negative experiences difficult and, for others, it was an emotional challenge.

In sum, our findings reflect the impact cognitive testing might have on older patients' dignity of identity. Nordenfelt's theory on dignity of identity (2004) links dignity of identity to the individual's self-image and maintains that dignity of identity can come and go as a result of the deeds of others. In this article, it is evident that dignity of identity is threatened not only by the test administrator, but also by the patients' newfound awareness of potentially lost cognitive skills. We suggest that the occupational therapists' vague introduction to the test might be one reason why patients struggle to recognize and interpret the test experience. The patients' accounts suggest that the potential threat the screening experience poses to individuals' dignity should be monitored and dealt with by healthcare professionals.

Individualizing standardized tests: Physiotherapists' and occupational therapists' test practices in a geriatric setting

In **Article 2**, we explore the test practice of six occupational therapists and eight physiotherapists who routinely administer standardized tests to own patients. The article is based on semi-structured interviews and hospital fieldwork that includes observations of 26 test situations.

Standardized tests have defined administration procedures that restrict communication and interaction with patients for the duration of the testing. Our findings illustrate that the test administrators experience a tension in standardized testing – between the contradictory demands of standardization and individualization. To handle these contradictory demands, the physiotherapists and occupational therapists navigate between adhering to the test standard and meeting what they consider to be the individual patient's needs in the test situation. The therapists tailor the test by implementing individualized adjustments depending on the patient's medical condition, functional status, state of mind, and emotional reactions. This

means that the therapists gave hints, provided motivation, and changed the test structure to accommodate what they understood as the patients' needs. These adjustments aim primarily at promoting a sense of security and avoiding patient stress in the test situation, but they can also be interpreted as encouragements to better patient performance. The therapist-patient relationship seems a significant factor in the tailoring of tests. Furthermore, test feedback is usually kept salutogenic, and it is contextualized to give meaning to the individual patient's treatment needs or home situation.

We suggest that the test encounter generates a tension between what standardization demands and what individualization requires. Therapist test administrators' tailoring of tests means that they navigate between adhering to the standard and meeting the individual needs of the test-taker. The therapists do not disregard during testing the established relationship they have with the patients, and use their relational competence (Nygren, 2004; Spitzberg, 1993) as a means to reach and maintain individualization. Hence, the established therapist-patient relationship might be conducive to the tailoring of tests and to the therapists' use of relational competence.

Everyday uses of standardized test information in a geriatric setting: A qualitative study exploring occupational therapist and physiotherapist test administrators' justifications

Article 3 explores how test administrators in a geriatric setting justify their everyday use of standardized test information. The article draws on semi-structured interviews with six occupational therapists and eight physiotherapists, as well as 26 test observations during hospital fieldwork.

We identified two test information components in everyday use among physiotherapist and occupational therapist test administrators. The primary component drew on the test administrators' subjective observations during testing, namely the clinician's gaze in the test situation. While testing, the therapists noticed patients' physical and cognitive functional abilities, bodily behaviour, emotional state, as well as treatment and training needs. The secondary component encompassed the communication of objective test results and test performance. Test scores were considered objective and functioned as a quality assurance in supporting professional statements. Test scores signify a specific level of functional ability, and a shared understanding of the meaning of test scores facilitated colleague communication. However, patients had no understanding of the meaning of scores, which is why test scores were contextualized, and often omitted, in patient feedback. The therapists expressed ambivalence towards objective data, because they did not capture the patient's unique characteristics. Caveats were used to render visible the patient's actual problem in the test.

To illustrate the two components we draw on Thornquist (1995) and her conceptualization of objectivity and the clinician's gaze. Our findings illustrate the overlap between objective (end scores) and subjective (observed performance) data in everyday practice. In clinical practice, by way of the clinicians' gaze on how the patient functions, the subjective and objective components of test information are merged, allowing individual characteristics to be noticed and made relevant as test performance justifications and as rationales in the overall communication of patient needs.

3. Theoretical and conceptual framework: Applying Goffman

While the articles in this thesis thematize and theorize different topics related to standardized testing, they increasingly draw on a recognition of the importance of the interactional properties in face-to-face testing. The influence of an interactional framework on this work has been gradual and is a result of exposure to the interactional approach promoted by qualitative research into standardized survey interviewing (see, for example, Houtkoop-Steenstra, 2000; Maynard, Houtkoop-Steenstra, Schaeffer, & van der Zouwen, 2002). In aiming for an expanded understanding of how standardized testing is actually constituted, I will, in this chapter, apply an interactional approach to the empirical material presented in the three articles. Thus, rather than bridging the different perspectives used in the articles, the resources of sociologist Erving Goffman's interactional framework will be applied to interpret the interaction in the test encounter. By using Goffman's interactional approach, I aim to draw attention to the dynamic aspects of standardized testing, and thereby to contribute to a broader understanding of the thematic analyses of meaning and content across cases that are presented in the articles.

To portray face-to-face standardized testing as an interactional activity, Goffman's view from below¹³ will guide an exploration of the test situation as a focused encounter – a test encounter. Goffman's conceptualization of focused encounters (1961:17–81) does not only reveal the temporal and structural boundaries of testing, it also allows for an emphasizing of the “interplay of acts” (Goffman, 1964) that takes place in the test encounter and the system of rules that shape how individuals define this particular type of encounter.

¹³ According to Hacking, “Goffman's research was “bottom-up” – always concerned with individuals in specific locations entering into or declining social relations with other people” (2004:278). Goffman starts with individual face-to-face expressions, but continues to develop an account of how expressions constitute lives.

One particular object is central in the test encounter, and before proceeding to Goffman, the role of the standardized test form will be addressed. An outline of the six standardized tests administered on the two wards is provided in the articles, but the anchor of testing, the individual test's form and instruction manual, has not been discussed. The form sets the parameter for interaction during testing, which is why, in the following subsection, the form's role in interaction will be investigated.

The standardized test form

The test form is a measurement instrument. A measurement instrument is: *"any set-up, no matter what its size, nature and cost, that provides a visual display of any sort in a scientific text"* (Latour, 1987:68). This means that a standardized test form or a survey interview guide is a scientific instrument alongside the "hard" scientific instruments of the research laboratory (*Ibid.*). In this regard, a point made by Suchman and Jordan (1990) is particularly interesting, because in contrast to other scientific instruments, such as maps, thermometers, and weights, standardized tests and standardized interviews take place as a face-to-face linguistic and interactional activity.

In the observed test encounters, the test form was commonly made unavailable to the test-taker. The form was placed on the table in front of the test administrator in cognitive testing (sometimes the occupational therapist would use her hand to shield the form from the test-taker's view), or it was put on a table nearby and only attended to by the physiotherapist when the test-taker finished a physical task. This means that at best, the test-taker observes the test administrator read from the form and write on the form. The form, therefore, gives the test administrator direction, but it is the test administrator that gives the test-taker direction. In short, a third party, represented by the form (its designer), decides what gets to be talked

about and, to some extent, how it gets to be talked about. The difference between Goffman's approach to interaction and standardized interaction can, accordingly, be pinned down to a difference in control: conversation or encounters are normally locally internally produced, but standardized tests and surveys are distant externally imposed (Suchman & Jordan, 1990). Hence, standardization clearly represents a shift in power (Morman, 1989; Timmermans & Almeling, 2009; Timmermans & Berg, 2003). However, power asymmetry is not a topic in Goffman's analysis of social interaction. He implied that all participants have the same possibility to influence the course of the interaction (Gouldner, 1970; Hacking, 2004). I assume that Goffman's attention, in this particular setting, would most likely be directed at the fact that standardized interaction is also dependent on locally produced control – the test-taker must agree to participate. This agreement is not final, it is negotiated throughout testing. This means that the form, once consent is given, only controls the interaction by determining its course and content. The form focuses the encounter.

The focused encounter

Goffman is read and used in many ways; a brief overview of the literature shows his perspectives contributing to microfunctionalism (Chriss, 2003), phenomenology (Ostrow, 1996; Psathas, 1996), and symbolic interactionism (Scheff, 2005). In this thesis, Goffman's perspective offers "*a microstructuralist model, one that applies macro-level analysis (focusing on institutions, social structure, and the normative order) to micro-level variables (face-to-face interaction)*" (Ducharme & Fine, 1994:91). This particular perspective on social interaction derives from combining the individual focus of Blumer and the cultural and ceremonial focus of Durkheim; hence, Goffman brings structuralism and interactionism together – in order to understand face-to-face interaction (Ducharme & Fine, 1994).

A fundamental term in Goffman's microstructuralist approach is "co-presence," and he differentiates between different dimensions of co-presence: social situation, social occasion, and social gathering (1961:7–14). These are all time-bound gatherings of two or more people. Nonetheless, the key unit appears to be the social gathering where two or more people find themselves in close presence of each other. The typical interactional structure in a social gathering is portrayed in two polar terms: unfocused and focused (Goffman, 1961:7). Unfocused interaction is described as random meetings wherein people pursue their own line of concerns and communication occurs "*merely by virtue of their presence together in the same social situation*" (Goffman, 1963:83). For instance, the interaction that plays out when you take the bus, stand in line for a concert, or walk in the park is neither actively sought nor engaged in. Focused interaction, on the other hand, is characterized by a single shared focus:

Focused interaction occurs when people effectively agree to sustain for a time a single focus of cognitive and visual attention, as in a conversation, a board game, or a joint task sustained by a close face-to-face of contributors. (Goffman, 1961:7)

Goffman (1961:18) refers to focused interaction as a *focused encounter*, and describes such an encounter as a physical yet ephemeral, purposive meeting, between (two) people who share:

- A single visual and cognitive focus of attention
- Openness to verbal communication
- A mutual relevance of act; persons willfully engage in interaction to pursue individual or collective goals
- An eye-to-eye ecological huddle that maximizes perception and monitoring
- A "we"-rationale that produces solidarity; we are doing this together

- A circular flow of feeling between participants
- Understandings of the ceremonies of entrance and exit
- A set of procedures for pointing out deviance and correcting deviant acts

Goffman acknowledges that the set of properties listed above represents an ideal type encounter, which is seldom approximated empirically – in real-life focused encounters not every co-present person will be fully engaged (Goffman, 1963:91). For instance, ideal-type focused encounters are more likely to occur between persons acquainted and between those who have a purpose for their interaction. Goffman recognizes, however, that some unacquainted persons are easier to approach and engage with than others are, and he refers to these as open persons (Goffman, 1963:126). In a hospital setting, for instance, open persons are health care staff in uniform. Health care staff may approach patients, and patients may approach health care staff, with a certain ease within the hospital.

For testing, the test administrator and test-taker gather in designated rooms, the test administrator introduces the test, they engage visually, cognitively, and verbally (face-to-face/body-to-body) in the testing, the test administrator concludes the test, and they exit. This scenario suggests a focused encounter and henceforth face-to-face standardized testing will be understood as a focused encounter – a test encounter. Throughout the articles, the terms *test session* or *test situation* (Downing & Haladyna, 2006; Marlaire & Maynard, 1990; Sarason, 1950) are applied to describe the activity of testing bound in time and space. Goffman's approach to the meeting of two persons in focused encounters allows increased analytical attention to the interactional content of testing.

It is important to note that the test encounter upon which this thesis is built differs from Goffman's perception of encounters (see the list outlined on page 24-25) in at least three ways. First, the test encounter is framed by structural constraints, which is standardization imposed by the instructions of the standardized test form (articles 1 and 2). Second, while Goffman highlights the presence of a "we"-rationale in focused encounters, it seems as if the therapists in the test encounter maneuver two, at times, conflicting "we"-rationales in the test encounter (articles 2 and 3). Third, standardized testing challenges normal impression management (articles 1, 2, and 3). In this chapter, each of these three aspects is explored and exemplified. Furthermore, an unresolved tension in standardized interaction is pinpointed against this background.

The dialectics of the two "we"-rationales

According to Goffman (1959:20–22), individuals will project a definition of the situation when they are in the co-presence of others. These definitions are usually attuned to each other so that no contradiction or conflicts occur between participants:

Together participants contribute to a single over-all definition of the situation which involves not so much a real agreement as to what exists but rather a real agreement as to whose claims concerning what issues will be temporarily honored. (Goffman, 1959:21)

This is what Goffman refers to as a working consensus (1959:21). The working consensus includes a definition of common courtesies and practical knowledge of posture, gesturing, spatial arrangements, tone of voice – and the rule of trying to fit in, not make a scene (Turner, 2002:22). As a result, "tact" is an essential qualification in the interaction (Gouldner, 1970). A

division of definitional labor and direction is also given, as well as expectations of a certain level of involvement – and that each present is required to help the other to maintain this level and may expect the same help for themselves (Ducharme & Fine, 1994).

Individuals agreeing on a definition of the situation and taking responsibility for the other's acts establish a consensual "we"-rationale (Goffman, 1961:18), a unit of us. That basically means that "we are doing this together." The "we"-rationale strengthens the interdependency of the participants, feelings of solidarity and group identity come about, for the duration of the encounter.

The findings presented in article 2 and 3 draws attention to the conflicted twin position of the therapist (as therapist and test administrator) in the test encounter. In the following, this particular finding will be pursued and linked to the understanding of a "we"-rationale in Goffman's description of encounters. So, rather than treating the "we"-rationale as fixed in the test encounter, the presence of two different "we"-rationales is made visible: that of the **test administrator–test-taker** and that of the **therapist–patient**. Exemplars of how the therapists iteratively navigate or maneuver between the two "we"-rationales (that is shifts between taking on the role of the test administrator who adheres to the test standard in testing a test-taker and the role of the therapist who responds to the patient's needs) in the course of the test encounter are presented, in turn, below under two headings: Avoiding the irrelevancies and Noticing the irrelevancies.

Avoiding the irrelevancies

The heading "Avoiding the irrelevancies" refers to one of Goffman's formalizations in focused encounters: The rules of irrelevance (1961:19–26). An encounter is regulated by

norms and rules and “... exhibits sanctioned orderliness arising from obligations fulfilled and expectations realized, and therein lies its structure” (Goffman, 1961:19). This brings forth the core of what Goffman referred to as the interaction order (1983), an order constructed around systems of enabling conventions (norms and rituals) that provide a basis for social order. The order of encounters mainly concerns what is to be attended or disattended in the accepted definition of a situation. In standardized testing, there is one main boundary to be maintained (or attended to) by the test administrator: standardization. Goffman would, probably, like Brunsson and Jacobsson (2000), Morman (1989), and Timmermans and Berg (2003), consider standardization a rule – an external constraint. Manning (1992:157) states that Goffman overemphasized the constraint rules placed on social behavior. However, Goffman never argued that rules were binding, rather that participants would take them into consideration (Goffman, 1963:42).

The “we”-rationale of the test administrator–test-taker, as defined and directed by the test form is characterized by a structure of disattention to all but questions and scorable responses. The test administrator in this “we”-rationale is a rule follower. The following quote from article 3 not only illustrates the amount of information that might come up during testing, but also pinpoints the test administrator’s focus (my bold):

OT12: (...) the ones that have experienced loss of memory and have had some a-ha moments where they’ve forgotten things – almost (started) a fire and things like that, they can be very like ... refuse and not wanting to take it (the test). Because they’re scared that we’ll find out that it’s become worse. Some are acting very “but I know this.” If we ever get to (the MMSE question), “What country are you in?” (They’ll say), “What a stupid question, right?” (I’ll say) “Yes, can you answer it?” Because

we need them to answer, and then you understand that OK here is [the patient] trying to hide something because the right answer isn't coming. (Rows 568–575)

While several things might explain why a patient would respond to the MMSE question number six – “*What country are you in?*” – by pointing out that it is a stupid question, the quote is used here to illustrate how the test administrator understands and handles this type of response. The response challenges standardization. The quote demonstrates the test administrator’s focus on obtaining an answer and avoiding the irrelevancies, and, as such, it illustrates the context-stripping procedure of standardized approaches noted by Mishler (1986:22–23).

In testing geriatric patients, test administrators must deal with interruptions, such as test-takers falling asleep, being in pain, not understanding the question, or consciously choosing not to respond to the question. These behaviors challenge the orderliness of standardization. For instance, in article 1 (p. 682), a test-taker describes his weariness during the test. If the test-taker’s weariness interfered with the test, the test-administrator, according to the rule of standardization, had two strategies: repeat the question or ignore and continue. The quote above illustrates the latter. However, as illustrated throughout article 2, the strategies of the test administrator in terms of interaction with the test-taker often went beyond repeating the question or ignoring and continuing with the test.

Noticing the irrelevancies

In addition to the two strategies, repeat the question or ignore and continue, a third strategy is visible in the test administrators’ efforts to handle test-takers’ behaviors that challenge the standard: corrections. In short, corrections could be anything from a motivating word to

ending the test (article 2). Corrections, such as those mentioned here, are commonly labeled “departures from standardization” or “departures from neutrality” in the literature on standardized interaction (Antaki, 1999; Antaki et al., 2002; Houtkoop-Steenstra, 2000; Marlaire & Maynard, 1990; Maynard et al., 2002; Maynard & Marlaire, 1992).

The test form defines what is relevant and irrelevant in the test encounter by providing the test administrator with specific instructions for administration. This means that within the frame of standardized testing, the room for corrections is restricted, and corrections could, in fact, jeopardize the standardized procedure. I would like to link this third strategy to the second “we”-rationale, that of the therapist-patient. This “we”-rationale goes beyond the here and now of the test encounter, and connects the therapist and patient together in a rehabilitation relationship. The “we”-rationale of the therapist-patient entails a clinical gaze demonstrated in this quote from article 3:

PT9: It (the test encounter) gives me additional information, and it can also give me tips on what we should work with. (...). And you may see that he has troubles with the step (an elevated platform in BBS) and maybe we need to work a little more on that particular part of his balance, right? Or, I saw that the pace in TUG was much better when he used his walker than when he didn't. So, that means that he's able to increase his pace, but that he's afraid to when he walks without support. (Rows 923–929)

This therapist notices information that extends beyond what standardized testing deems significant. The irrelevancies that the test administrator works to avoid in testing reappear in the therapists' accounts on uses of test information in article 3: Test irrelevancies are noticed and appear in communication with patients and other health professionals in the form of

caveats, treatment concerns, and typologies such as “reckless” and “careful.” In this “we”-rationale, it seems the therapist is a problem-solving health professional facing own patients. Maintaining a good relationship with the patient is a priority in the therapists’ accounts, and this particular finding will be discussed in the following subsections. Note, though, that the maneuvering of two “we”-rationales might conflict: The patient is often unable to follow the therapist / test administrator’s lead or does not understand the purpose of testing (article 1), and one “we”-rationale might conflict with the other one due to contradictory responsibilities and duties inherent in their definitions (articles 2 and 3). Similar conflicts might be found in studies stating that health professionals acting as test administrators are biased when scoring own patients (DeLuca & Putnam, 1993; Dingwall et al., 2013; Fals-Stewart, 1997; Greenhalgh, Long, et al., 2008). The departures from standardization presented in article 2, in particular, exemplify that patients’ needs are chosen over standardization. In a potential conflict it seems that maintaining the “we”-rationale of the therapist-patient is prioritized. Nevertheless, in practice, the most fruitful way to approach the two “we”-rationales might be in terms of their dialectics, and not their conflicts.

Impression management in standardized testing

Goffman’s focused encounter places a particular focus on the organized interplay of acts. His point of departure in face-to-face interaction involves “*an inevitable psychobiological element*” (Goffman, 1983:3), as he considers emotion, cognition, and muscular efforts fundamental to face-to-face interaction. In interaction, the *expressiveness* of the individual is the medium through which information about the individual is communicated. We *express* ourselves and we *impress* others in certain ways (Goffman, 1959:2) – and because Goffman highlights goal-directed conscious and unconscious performance as key to our sense of self,

this particular conceptualization is referred to as the *impression management thesis* (Smith, 2006:35–36).

Information about the individual is communicated through *expressive messages* that are “given” or “given off.” Information based on talk is usually considered an expression given, whereas tone of voice, accent, facial gestures, and posture are examples of expressions given off (Goffman, 1959:203–230). In other words, the expressions an individual gives are considered intentional and those given off are considered unintentional. Applied to the test encounter, expressions given and given off in interaction provide a flow of information between participants. They may “read” the other’s behavior by monitoring or auditing the expressive information given or given off; this is what Goffman calls “*an eye-to-eye ecological huddle that maximizes perception and monitoring*” (1961:18). This means that both have symmetrical roles as “transceivers” of expressive information – Goffman says, “*each giver is himself a receiver, and each receiver a giver*” (1963:16). In theory, both participants will be able to regulate the emission of messages that express their inner state and thoughts while interpreting the intentional and unintentional messages of the other (Ducharme & Fine, 1994).

However, the expressions given by the test administrator are constrained by the standard specified in the test manual. What seems to worry therapists is that adhering to the standard as a test administrator might affect their future relationship with the patient. Therapists’ impression management is demonstrated in view of this worry, particularly their efforts to appear more like a therapist, and less as test administrator in the test encounter, in article 2. See, for instance, the following quote:

I try to hide behind the fact that this is something the doctor wants us to do and that everybody admitted to this ward has to do the tests. (...). (Article 2 p. 1172)

A similar effort is noticeable, in articles 1 and 2, when the introduction to the test provided by the therapist aims at reducing the testing character of the encounter; words such as “questions” and “tasks” are used instead of “test” – for example, “*take a look at your balance*” or “*ask you some questions.*” The therapist thus promotes a nonthreatening image of testing to ensure a sense of security for the patient (article 2, p. 1172) and possibly to ensure patient compliance. However, our findings suggest that the introduction to the test encounter is not fully understood by the patient. In article 1, it is evident that some patients do not initially understand the instrumental rationale of the test encounter; this only became clear to them as the test progressed or after the test ended; some never realized that it was more than just questions (p. 684). Seeing these findings in light of Goffman’s working consensus makes it possible to suggest that the therapist’s initial introduction to the test attunes some patients into a working consensus similar to that of the admissions talk or any other clinical encounter. Conflicting definitions of a situation might jeopardized the “we”-rationale in the encounter – “*the sense of the single thing that we are doing at the time*” (Goffman, 1961:18). One example of a conflicted definition is illustrated in article 2 (p. 1172), where a patient apparently confronts the therapist test administrator on the meaning of the test after being tested. The therapist says: *[T]his one patient wondered why in the world’s name, what significance having done [the BBS] had for her – and that is a pretty good question. (...).* In the article, the full quote illustrated the therapist’s handling of patient reluctance, but, as seen here, it also underlines that the initial communicational arrangements for testing are not recognized by the patient. Consequently, contradictory acts and responses might enter the encounter and enhance the need for departures from standardization.

Notwithstanding the significant position of the test administrator, which was discussed throughout article 2, it is the patients' impression management in the tests that calls for attention. After all, the patient is the test-taker. A little empirically inspired detour is necessary to clarify that these tests are not tests of knowledge or skill *per se* – their questions and tasks tap into the brain-behavior relationship. Malingering and conscious nonresponse aside, the tests are designed to reveal that which is outside the domain of the intentional process – they are designed to detect biological and/or genetically grounded activity. Turner, a sociologist who builds on principles in Goffman's work, maintains that interaction does not transcend biology; rather, interaction is embedded in biology (2002:28). The fact that the tests register regularities that are not sensitive to the perceived outcome illustrates Turner's point. Take for instance the BBS task number six, in which the patient is instructed to stand with eyes closed for 10 seconds; the patient will not be able to imitate a good balance in this position – if the patient's balance is poor, the patient will have to take a step forward for support, or risk falling. The same goes for the MMSE, where the patient's memory is tested. The patient might be able to repeat the named prompts (house, rabbit, train) in question number 11, but when asked to recall them in question 13, the patient might have forgotten them.

Therefore, the responses or performances provided by the patients can be described as intentionally given, but if they are deemed by the therapist to be wrong or poor (as in received a low score), they are also deemed unintentional (as having a possible biological cause). As a result, the patients' responses are recognized by the test administrator to mean something other than just lack of knowledge or skill: a wrong answer in MMSE might indicate potential cognitive impairment; having to grab the therapist for support while performing on the BBS might signify poor balance. The test-taker has limited control over the information that is given/given off, which, in turn, leads to a discrepancy between the test-taker's own

expressions as they are given and the meaning and impression they give off. This discrepancy can cause embarrassment.

Goffman is often criticized for his portrayal of individuals as strategists who manipulate their own expressions to present themselves in a certain way (Turner & Stets, 2005:28). For the test-taker, a cognitive or physical test will limit most opportunities for strategic manipulation, especially in terms of presenting himself or herself as functionally better. Malingering is of course possible, but therapists argued that malingering is often revealed since they “*see the patient during the whole day*” (PT13 in article 3). The claimed manipulative aspect in Goffman’s impression management is challenged in the test encounter because of standardization and test questions targeting the brain-behavior relationship. The test-taker’s responses will sometimes go against the test-taker’s intentions.

All three articles bring into view the fact that patients are sensitive to the outcome of their activities. Intentionality – the fact that humans are sensitive, remembering, perceiving, reflecting, acting, and feeling (Smedlund, 2009) – is what makes the patient aware of the unintentional acts that he or she performs in the test encounter. In article 1 on page 683, several test-takers communicate that this awareness bothered them after the test. One patient said he “*really didn’t do well*” on the test, but that he chose not to be bothered by it. Intentionality, therefore, remains a central feature in testing despite the test’s focus on the unintentional domain. While the role of patient intentionality (article 1) and how therapists choose to handle patients’ reactions (article 2) are important to note in the test setting, Goffman did not report on individual exchanges merely for their own sake. He was interested in not only how people are constituted, defined themselves, but also how they were understood by others (Hacking, 2004).

Facework

In face-to-face interaction, individuals present a public image of themselves that Goffman terms “face” ([1967]1982:5). Impression management is a means to present one’s face. In encounters, participants seek to conduct themselves so as to maintain their own face and the face of others, thereby showing sensitivity to the “rule of self-respect” and the “rule of considerateness” (Goffman, [1967]1982:10–11). A person’s feelings are connected to face; therefore, face is an interactional construct, not a personal one (Smith, 2006:51). One can lose face and even threaten another’s face in interaction, but, as mentioned, those present will usually appear to treat each other’s face with care (consistent with the working consensus). Standardized tests are designed to “reveal face” or, more specifically, to discover functional abilities – and as stated earlier, this particular feature of testing makes impression management challenging and can lead to embarrassment.

Facework is “*the actions taken by a person to make whatever he is doing consistent with face*” (Goffman, [1967]1982:12). Facework is done to counteract negative incidents and to sustain the order of the encounter. Goffman’s understanding of face as an emotionally invested self-esteem can be interpreted as having both a negative and a positive component (Brown & Levinson, 1987:61–64), or what Goffman himself refers to as avoidance processes and corrective processes (Goffman, [1967]1982:15–23). The positive component of face concerns the need for appreciation and acknowledgement by others, and is usually stimulated by compliments and feelings of solidarity. The negative component of face concerns the need for freedom of action and for avoiding imposition by others. Both components motivate strategies for politeness (Brown & Levinson, 1987:61–64): the former often by way of non-neutral expressions: “*You did well!*” and “*Great!*” (article 2 p. 1173). The latter need is mainly fulfilled through avoidance, which is described in accounts on how some therapists

avoided providing a full introduction to the test (article 1 and 2) or avoided providing direct feedback of numerical results (article 2 p. 1173). And so, these findings support Brown and Levinson's (1987:61–64) notion that negative and positive “face-threatening acts”¹⁴ are solved by the speaker in the way he or she finds the most polite.

Under normal circumstances, when individuals are not able to present themselves as desired or are not able to follow the norms of the encounter, it might lead to negative sanctioning of that person from the other participant, and the person will experience embarrassment (Goffman, 1956). Goffman arguably saw *embarrassment* as the most central emotion in social life (Schudson, 1984; Turner & Stets, 2005). Feelings of embarrassment lead to apologies, repairing rituals, and presentation of a more appropriate self. In the following excerpt from an interview presented in article 1 (p. 683), the patient pinpoints the particular moment when he was unable to present a successful self in the test encounter. His subsequent feelings of embarrassment are implied towards the end of the excerpt (P5M = patient 5 male, I = Interviewer):

P5M: I think it went well up to a certain point – and then I was finished!

I: You were finished? Where did you come to a stop?

P5M: It was that subtraction task...

I: Is this something you've thought about afterwards?

P5M: Some...

I: What have you been thinking?

P5M: That, by Jove, I'll get even!

¹⁴ Following Brown and Levinson (1987:61–64), being asked to take a test is a negative, face-threatening act and if any of the questions are perceived as sensitive, they may be a positive, face-threatening act.

This patient expressed a wish to represent a more appropriate self in the interview – to get even! Other patients initiated repairing of the self in the test encounter by stating that they were surprised by their failure to accomplish a task – for instance, the subtraction task in MMSE – because they handled all the household bills in their younger days (article 1 p. 683).

Goffman states that embarrassment occurs because the individual's acts are inconsistent with the image he or she wants to project, and, as such, embarrassment is about losing face (Goffman, 1956). It appears that a therapist in article 2 makes a similar connection when recognizing the distress some patients experience post testing: *“Especially if they’ve been a bit ‘undressed’ and if [the results] were worse than what they’d expected. Then it’s a small form of loss [for them]”* (p. 1174). The term “undressed” used in this quote bears strong resemblance to Goffman’s “loss of face” (1956). Goffman introduced the term “facework” to illustrate how people engage to maintain face, but here it also illustrates that responsibility is taken for the other person’s face as well. Note for instance the implied facework in this quote from article 2 (p. 1174):

If they ask, [“What do you see now?”] then I try to be honest. But I consider the person a bit. Because if they are very sad—I don’t know if you observed this one guy who we walked with in the hallway—he cried and cried and cried the first weeks. And I tried to steer clear of all the painful questions and tried to not emphasize the negative, but instead turn [the test situation] to something positive, because it would have done him no good whatsoever [to hear the negative results].

The process of reasoning expressed in this quote fits well with Goffman’s idea of mutual consideration. In all three articles, some level of contextualizing patients’ performance is

presented, either directly to patients or to colleagues. This particular element in test interaction can be considered a corrective process; the therapists work to save the patient's face. The therapists have an obligation to prevent the defacing of the other, and to engage in corrective actions, such as described above. Shulman (2000) mentions that clinicians worry about offending patients in cognitive testing. Loss of face, and an offended patient, can undermine not only the encounter, but also the future relationship of therapist and patient. Thus, the therapists' efforts to save patients' face can have a positive effect on the patient's image of self, but also on the patient's image of the therapist.

Testing is a part of therapists' regular practice, but it is also likely that, on occasion, therapists might perceive testing in terms of what Lofland and Lofland label an episode. Episodes as analytical units are characterized by being dramatic or unexpected in the eyes of participants (1984:84). Although encounters are established as the analytical focus here, empirical examples of patient distress in article 1 and 2 illustrate that episodes occur in testing. Goffman introduced the term "fatefulness" in his book *Interaction Ritual* ([1967]1982:161–170) to conceptualize the ambiguous emotional state that might emerge once an individual must make a decision that seems exceptionally important or risky. When a female patient in article 1 (p. 683) communicates her apprehension towards testing because she feared it might reveal that she had Alzheimer's disease, it is obvious that she perceives testing as dramatic. "Fatefulness," as conceptualized by Goffman and as used in U.S. media coverage on testing (in chapter 1), might be a helpful tool in recognizing why, and under which circumstances, standardized testing not only offers objective measures and contributes to the diagnostic process and treatment, but also contributes to individual distress.

The tension in standardized interaction

A tension between the demands of standardization and the requirements of individualization is highlighted in this material. Therapist test administrators reduce this tension by maneuvering between following the rules and solving problems. In this thesis, maneuvering is linked to the two “we”-rationales in the test encounter. Suchman and Jordan (1990), however, link the tension to the fact that normal conversation is restricted in the survey interview, which is a kind of standardized interaction:

There is an unresolved tension between the survey interview as an interactional event and as a neutral measurement instrument. On the one hand, the interview is commonly acknowledged to be fundamentally an interaction. On the other hand, in the interest of turning the interview into an instrument, many of the interactional resources of ordinary conversation are disallowed. (Suchman & Jordan, 1990:232)

Suchman and Jordan recognize, as Goffman probably would, that the moment an interviewer and a respondent sit down face-to-face and start to talk, the survey interview depends on rules and resources from everyday conversational practice. A similar argument is found in Holstein and Gubrium's (1995) discussion of structured qualitative interviews – no matter how standardized the interaction, face-to-face encounters remain linguistic and interactional actions. Thus, the standardized element in tests and survey interviews suppresses the interactional resources routinely used to mediate uncertainties of relevance and interpretation (Suchman & Jordan, 1990).

Goffman does not reject conversation analyses à la Suchman and Jordan (1990); rather, he argues that the model of the speaker/hearer as a transmitter of information should be placed in

a broader interactional framework. He urges a closer look at how social interaction constantly involves self-presentation and maintenance (Kendon, 1988:14). Towards this end, I have suggested that a more fruitful approach to understanding the tension uncovered in standardized interaction is to do so at the level of the two “we”-rationales (test administrator–test-taker and therapist-patient) discussed throughout this chapter. This approach finds a parallel in studies on clinicians who participate in research trials where protocols are standardized (Easter, Henderson, Davis, Churchill, & King, 2006; Hallowell, Cooke, Crawford, Lucassen, & Parker, 2009; Lawton et al., 2012). These studies highlight that a tension exists between research and care activities – a tension attributable to the difference between testing and being a physiotherapist or an occupational therapist. For instance, health professionals participating in standardized trials as scientists find it difficult to distinguish between the apparently identical behaviors in clinical research and clinical care (e.g. obtaining consent, drawing blood) (Hallowell et al., 2009). They minimize the tension between conflicting demands and roles by focusing upon the commonalities between research and care (Easter et al., 2006; Hallowell et al., 2009; Lawton et al., 2012). While the activities of the researcher are similar to those of the clinician, researchers and clinicians have different epistemological stances – and Hallowell et al.’s (2009:2016) distinction between research and clinical care is germane to the difference between standardized testing and clinical care as well; standardized tests are about generating generalizations of the particular, and clinical care is about responding to an individual patient’s needs by applying general observations to particular cases. A similar argument is found in article 2 (p. 1175), where it is reasoned that the activities and the temporal focus (time dimension) of the test administrator are different from those of the therapist. Whereas the test administrator’s activities and focus are geared by the here-and-now stimulus-response structure of the test, the therapist’s problem-solving activities and holistic focus are geared by the patient’s needs. In trying to implement both

activities and focuses at once, tension occurs. Testing performed by therapists (as opposed to technicians. See DeLuca and Putnam, 1993) might heighten this tension, especially if testing own patients.¹⁵ The tension is often solved by departures from standardization.

Brunsson and Jacobsson claim, in true Goffmanian spirit, that *“The alternative to standards is seldom a situation without rules; rather, it is a situation in which rules other than standards obtain”* (2000:10). According to Goffman (1974:1–2) all interactions have rules. These are assessed by the participant and acted upon. It is the knowledge of which rules apply in the given situation that makes social interaction to some degree predictable and understandable. Nevertheless, all interaction takes place in a larger context than the encounter. This larger context, the “top-down” approach, is largely absent in Goffman’s conceptualization of social life; there is no perception of institutional origins or structure (Gouldner, 1970; Hacking, 2004). The absence of a “top-down” approach means that history and power, but also individual resources and individual contexts, often considered pertinent to qualitative research within health care and medicine, are largely lost in his analysis. Goffman’s focus is always: *“Not, then, men and their moments. Rather moments and their men”* ([1967]1982:3).

This chapter has underscored standardization as a rule and has highlighted the constraints standard rules have on interaction in standardized testing. I have illustrated that face-to-face standardization in principle is difficult. In keeping with an interactional approach, it is even possible to claim that there is no such a thing as standardized interaction – there are only degrees of departure from standardization (Houtkoop-Steenstra, 2000; Lee et al., 2003; Maynard & Schaeffer, 2002; Suchman & Jordan, 1990). Based on a similar approach to standardization, Lee et al. (2003) differentiate departures as either modification or

¹⁵ Viewing the heightened tension in light of research suggesting that health professionals who test and score own patients are potentially biased (DeLuca & Putnam, 1993; Fals-Stewart, 1997; Greenhalgh, Long, et al., 2008; Stewart, 1999) might offer new analytical insights.

accommodation – maintaining that modification and accommodation are the only real options of the standardized test administrator. As such, Lee et al. underpins the argumentation of qualitative standardized survey researchers (Marlaire & Maynard, 1990; Suchman & Jordan, 1990) who suggest that face-to-face standardization is best understood as a collaboration between participants.

4. Material and methods

The intention of this chapter is first to describe how the empirical data used in this thesis came to be: the contextual factors of the field, how data were collected and analyzed.

Central to the second part of the chapter are the epistemological assumptions relevant to data collection and hospital fieldwork: especially research ethics and the possibilities and limitations that hospital fieldwork entails.

This project was titled “Dilemmas in the hospital rehabilitation of geriatric patients,” and was part of a larger research project “Rehabilitation as conflict” funded by The Research Council of Norway.

Fieldwork – access and therapist recruitment

After receiving approval from the Regional Committee of Medical Research Ethics (S-00811d, 2008/20511) and the hospital’s privacy protection ombudsman, several meetings were held with the head of the geriatrics department in a Norwegian hospital. When access to the field was granted from the top level, access had to be obtained from the heads of the two wards decided upon: a stroke unit (SU) and an acute geriatric ward (AG). Thus, formal access to the field was granted by *gatekeepers* (Hammersley & Atkinson, 1987:76) at two levels in the hospital organization. The acute geriatric ward was specialized in geriatric care. Since stroke tends to occur in later life (Goldstein et al., 2006) the stroke unit admitted a high number of older patients. Both wards had 20 patient beds.

While the general staff on the two wards – physicians (some interns), nurses, nurses’ aides, social workers, speech therapists – were informed of the project by their attending physicians

or head nurse, the occupational therapist and physiotherapist staffs were informed of the project by the project's contact persons. Having a key contact person on each ward was a requirement from the hospital's privacy protection ombudsman. One occupational therapist and one physiotherapist agreed to participate in the project as key contact persons after being informed of the project's focus on dilemmas in the hospital rehabilitation of geriatric patients by the head of the geriatrics department. In the early stages of fieldwork these two therapists informed and recruited participants from their own professional groups (convenience sampling). The only inclusion criterion was that participants had to work in one of the two wards as an occupational therapist or as a physiotherapist. The contact persons distributed information/consent forms which therapists read and signed in private. One therapist declined participation, citing reluctance to being observed as the reason. While there was a risk that staff would feel obligated to participate, this particular rejection might indicate that feelings of obligation were not a major issue.

Recruitment was successive; not all therapists were recruited at the same time. A total of 14 therapists, two men and 12 women, eight physiotherapists and six occupational therapists, volunteered to participate (table 1). This means that apart from the one therapist who declined participation, all therapists working full time on the two wards agreed to participate in the project, in addition to a few with part-time employment. The occupational therapist and physiotherapist participants were from 22 to 54 years old, and had from three months to 25 years of experience working with geriatric patients (two were interns).

Table 1 Therapist participants and affiliation

Participants	AG	SU	Sum
OT	1	5	6
PT	4	4	8

To inform patients and visitors of the project, posters were hung in the wards, in the reception area, in the staff lunch room, and in patients' TV and common rooms. An information sheet was also distributed to all new patients, informing them about an ongoing project and the presence of a researcher during the given period. In total, 4 different forms were distributed on the wards (appendix numbers I–IV):

- | | |
|---------------------------|----------------------------------|
| I. Therapist consent form | III. General patient information |
| II. Patient consent form | IV. Poster information |

Fieldwork – observations and patient recruitment

Fieldwork was divided between the two wards. Every week, one workday was spent on each ward following an occupational therapist or physiotherapist around in his or her daily work with patients. While stroke patients and geriatric patients are two different patient groups, occupational therapists' and physiotherapists' approaches to treatment and rehabilitation are similar; both patient groups receive a broad and multidisciplinary assessment which includes standardized testing. Attempting to divide my time in the field between occupational therapist and physiotherapist staff, fieldwork was almost always scheduled with a therapist a week in advance. Rotating between members of the occupational therapist and physiotherapist staff also reduced the overall burden on the therapists' time. This arrangement, in addition, enabled

therapists to organize their patient interaction and to see the patients who lacked the ability to consent before observations took place, or after observations concluded.

The project sample also consists of the 89 patients observed interacting with the occupational therapists and physiotherapists. Inclusion criteria for patient participation were 65 years or older, speak Norwegian, and able to consent. Forty of these patients were observed at the stroke unit (table 2). Stroke patients were, as expected, the most frequent diagnostic group at the stroke unit, followed by patients with transient ischemic attack (TIA), and loss of function following a possible stroke. As illustrated in table 2, cooperation between occupational therapist and physiotherapist in patient care occurred, especially when a stroke patient's impairment was severe and too physically demanding for one person to handle. Average length of stay for stroke patients was 9 days.

Table 2 Observed patients at the stroke unit

Observations SU	OT	PT	OT/PT	Sum
Male patients	7	9	2	18
Female patients	8	12	2	22

At the acute geriatric ward, 49 patient-therapist interactions were observed (table 3). At this ward, different diagnoses were represented: fall, general and specific loss of functional ability, as well as fractures and infections. Average length of stay on the acute geriatric ward was 4 days.

Table 3 Observed patients at the acute geriatric ward

Observations	OT	PT	Sum
AG			
Male patients	4	20	24
Female patients	4	21	25

In total, about 170 hours were spent observing occupational therapists and physiotherapists work with geriatric patients; this includes observing 26 test encounters (table 4). I spent time with therapists between their sessions with patients, talked to participating patients in the halls and in the TV room, and also attended seven multidisciplinary team meetings.¹⁶ Patients admitted to the acute geriatric ward spent little time outside their rooms. Patients admitted to the stroke unit usually ate their meals in the common rooms and they would also spend time there watching TV and chatting with each other.

Table 4 Test observations linked to professional affiliation and work place

Test observations	SU	AG	Sum
PT	4	10	14
OT	8	4	12

Due to the fact that patients on one ward was experiencing Norovirus illness when fieldwork started, the attending physician told me to wear a hospital coat to avoid contamination. The white hospital coat was worn on all observations. A sign pinned to my coat stated my name and affiliation in bold letters.

¹⁶ Observations from the team meetings are not directly used in the articles.

I recorded field notes according to standard procedures, taking short notes while in the field and expanding these shortly thereafter (Schatzman & Strauss, 1973; Spradley, 1980). The process of taking field notes is developmental. In the beginning I wanted to get everything written down in my notebook, but this intertwined with my insecurity about where and how it was acceptable to take notes; was it acceptable to sit and take notes as an episode played out in front of me? Or should I write my notes in private? After a while I became more at ease with note taking, interchangeably taking notes and observing, depending on how I assessed the impact note taking would have on the situation. During testing, I tried to sit behind the patient because I experienced that if I was visible to patients they might diverge from the test and talk to me.

A typical day

I met with the therapist in the morning between 9 and 10 and he or she would inform me about the day's patients and activities. The therapists usually had from four to eight patients every day, but often several of these patients would be unable to consent to observation and were not asked to participate in the project. Therefore, observation of therapist-patient interaction could vary from one to four patient interactions each day spent on the wards. The therapist made the decision regarding the individual patient's ability to consent, based on the patient's journal or prior knowledge of the patient. If in doubt, an attending physician was conferred with. The therapist, and occasionally the attending physician, functioned as "*gatekeepers*" (Hammersley & Atkinson, 1987:76) exercising control over my access to patients. The therapists would go to the patients alone and ask for consent; the patients were, therefore, informed of the project's focus and the researcher's affiliation, and asked if they agreed to observation before I entered. Upon entering, I always shook the patient's hand and introduced myself, presented the project in a clear and concise fashion, and provided a short

description of what I aimed to observe, usually stating that my interest was observing “*how you and your therapist work together.*” The consent form was then signed. If a patient declined to sign the consent form, no observation was conducted. The therapist and patient then started the planned activity. I observed activities varying from in-bed mobilization, standardized testing, walking, stair practice, admittance talk, to general and specific training. In between and after observations I spent time with therapists, patients, and the general staff on the ward.

Data analysis

The empirical data in this project consist of field notes and interviews. Field notes were written in a non-structured manner, as they occurred during observation, and were later categorized into observational notes, theoretical notes, methodological notes, and personal notes (Schatzman & Strauss, 1973; Spradley, 1980). Field notes were analyzed based on the approach of direct content analysis. Also, noted incidents in the field were explored and compared with statements in the interview transcripts.

In analyzing the 14 therapist and 18 patient interviews, the four designated steps of Systematic Text Condensation (Malterud, 2012) were followed:

(i) The transcripts were independently read by myself and two coauthors to gain an overall impression of whole material. At this point, we were looking for preliminary themes associated with the focus for each article. Being attentive to the participants’ voice required that we bracketed our preconceptions in this initial stage of the analysis. Mapping preconceptions is a key aspect of Malterud’s method (2001, 2012). A preexisting fieldwork will, necessarily, have an impact on preconceptions. At the time of the interviews and

analysis, my immediate preconceptions were very much linked to my experiences in the field. While I aimed at bracketing these preconceptions throughout this stage in the analyses, the experiences from field work later enabled me to challenge some of the interviewees' statements and descriptions because I had observed what they actually did in practice. My collaborators also had preconceptions connected to testing, physiotherapy, psychometrics, ethics, and older people. These preconceptions were made known, challenged, and discussed throughout the analytic process and, as such, the analysis profited from being conducted by several researchers – "*not for consensus, but to create a wider analytic space*" (Malterud, 2012:797).

(ii) In reading the transcripts closely, we identified and coded units of meaning (relevant talk) associated with our preliminary themes. A unit of meaning is a text section that discriminates an aspect of meaning in relation to the interviewee's experience. Such units are contextual and highly individual accounts (Giorgi, 1985). Identified units of meaning were categorized and coded. Coded units were actively negotiated and changed several times until a general agreement was achieved. Kvale and Brinkmann (2009:201–202) characterize a coded unit as a text segment with a keyword attached. The same keyword may appear on several text segments, enabling later retrieval and grouping.

(iii) The meaning in each of the coded groups was interpreted and condensed in summary-like fragments. In this manner, abridging meanings into shorter formulations (*Ibid.*). On article 2 and 3, a fourth coauthor independently read the material (interview excerpts) organized under codes and contributed in negotiating the final categories and their contents for each article.

(iv) The condensations were generalized (reconceptualized) to provide an overall reflection of the most important patterns and themes appearing in the analysis. A pattern surfaces when an experience is shared and it is enriched when a certain degree of variation or contrast is visible in the experiences (*Ibid.*). Quotations are used as illustrations to exemplify how meaning is expressed by participants (Corden & Sainsbury, 2006:11–14).

To best maintain the characteristics of the data, we chose to use two different approaches in presenting them. In article 1, we approached the data with a phenomenological notion aiming to emphasize the experience of the individual patient being tested during his or her stay at the hospital. Most of the older patients interviewed were new to the hospital setting, to rehabilitation, and to testing. This patient characteristic motivated a wish to highlight individual experiences rather than a group perspective. We sought the common meaning and the differences of the individuals' test experiences (Creswell, 2013:76) by listening to their accounts of what they had experienced and how they experienced it, and by interpreting the meaning of this experience. Systematic Text Condensation is a modified version of Giorgi's phenomenological analysis (1985), but Malterud (2012) herself voices caution towards using her method in a strict phenomenological manner. Our approach in this first article is not strictly phenomenological, because it is interpretive. Theoretical "*interpretations are (...) likely to go beyond the subject's self-understanding*" (Kvale & Brinkmann, 2009:215). A theoretical and interpretive understanding is added by our use of Nordenfelt's "dignity of identity" (2004).

The articles 2 and 3 consider professionals' descriptions and aim, consequently, at a broader interpretation of test practice and test usage. Occupational therapists and physiotherapists are two cultural-sharing groups. Their professional roots shape their practice, which is why we

aimed at portraying a professional-group perspective, rather than an individual perspective. We were interested in a specific type of encounter – the test encounter: what occupational therapists and physiotherapists did, what they said they did and, also, what they ought to do (Creswell, 2013: 90–96) before, during, and after these encounters. This perspective highlights not only the group perspective, but also the importance of institutionalized practice and context in patient encounters.

Epistemological assumptions

I have a background in social anthropology, but shortly after graduating I started working with qualitative health and medical research. In this project, my background in social anthropology is detectable in my use of methodological approaches characteristic of ethnography, my interest in interaction, as well as in my approach to knowledge as “*the situated and temporary outcome of dynamic interpretations of several possible versions of reality*” (Malterud, 2012:802). However, instead of focusing strictly on the methodological scheme or on the criteria defining ethnography, I have used a variety of conceptions of qualitative research (Seale, 1999:2–8).

Prior to fieldwork, my experiences with hospitals were limited to childbirth and being the sporadic visitor. So, doing fieldwork was a necessary step for me to do in order to learn about the goings-on in the field. Recognizing how the factors that shape relationships in the field and in the interviews influence the quality and content of information is a significant task in visualizing researcher reflexivity (Malterud, 2001; Manderson, Bennett, & Andajani-Sutjahjo, 2006). Reflexivity refers to the recognition that research is affected by the research process and by the researcher. In contemporary qualitative research, a researcher’s preconceptions and subjectivity are believed to be part of the analytical process and not necessarily a bias (Kvale

& Brinkmann, 2009; Malterud, 2001). Below, I will attempt to explicitly acknowledge the effect I had on that which was researched.

The fieldworker's role

Fieldwork allowed me to observe and experience what I investigated within the context of everyday clinical practice (Måseide, 2005). It was a learning process where I developed an understanding of what it is like to work as a specific type of health professional in a geriatric setting and learn the professional jargon of therapists. I also got a look at what it entailed to be an older patient. This outsider position requires attention to one's own effect on the process of fieldwork, to one's own role during fieldwork, and to the strategies used to develop honest and trustworthy research relationships.

In the hospital context there are principally three roles to choose from: health care provider, patient, or visitor (Wind, 2008). This was a training hospital and students were a part of the hospital setting, yet researchers were not a part of the hospital's daily routine. My experiences doing fieldwork in a hospital setting are similar to those described by Wind (2008) and Måseide (2005); being a researcher, a fieldworker in a hospital setting, you do not automatically fit in. The strict role repertoire of this setting leaves no room for participant observation; downright observation, often labeled non-participant observation (Spradley, 1980), might seem like the only option. However, while I often probably was a non-participant observer, my presence was always negotiated – for example, I usually asked each therapist a few days in advance if it was possible to follow them for this or that day. If, for some reason, my occupational therapist or physiotherapist for the day did not come to work, I had to reschedule and ask someone else at the spur of the moment. I also helped out if a patient needed extra support during a training session; I helped lift patients to a

sitting/standing position, helped carry the patient's oxygen bottle, and made sure patients who approached me for help were seen to by a professional. So, while I refer to one of my research procedures as observation, I would like to point out that there was a constantly negotiated interacting between me, patients, and therapists:

Interacting means that something is going on between people but not necessarily that there is an agreement on what is going on or that they engage in the same narrative. (...). There will be a constant negotiation of when and how the observation and interacting will or will not take place. (Wind, 2008:85)

These negotiations did not concern only my presence or help with patients, but also the therapist-researcher relationship. Negotiations functioned as strategies in developing research relationships: I discussed findings with participants on the wards informally and some incidents were discussed in interviews. My lack of health education was often used to separate me from the students. I was not a student in the regular sense, yet I followed health professionals around, like students did. Some therapists confessed that it was less work having me tag along than having an actual student do so – with students, therapists had to be on their best behavior because students had to be instructed.

Interviews – therapists and patients

Therapists and patients were interviewed and both interview guides (appendix numbers V–VI) were developed based on fieldwork conducted on the two wards. The therapist interview guide (appendix V) was developed in May and the patient interview guide (appendix VI) was developed in July. While developing the guides and conducting the interviews, I was attentive

to Kvale and Brinkmanns' (2009) principles for interviewing. Throughout the interviews I aimed at creating an atmosphere where patients and therapists felt encouraged to talk freely.

In June, July, and August of 2009, semi-structured interviews were conducted with the 14 participating physiotherapists and occupational therapists (table 1). To prepare for these interviews, a pilot interview was conducted with a senior occupational therapist staff member who did not participate in the project or work on either ward, but who had prior work experience with older patients. The interview guide for the therapist interviews consisted of five topics: working with older patients, multidisciplinary teamwork, therapist-patient communication, patient's preferences/participation, and standardized testing. All interviewees were informed about their right to stop or to withdraw, and were promised confidentiality. Interviews lasting from 44 to 75 minutes were conducted in the occupational therapist training kitchen, occupational therapist testing room, physiotherapist training room, meeting room, and day hospital training room according to participants' own suggestions. The therapists took time off work for the interviews, and being away from work more than one hour was difficult. All interviews were tape-recorded, except for one interview during which the microphone malfunctioned. Close to half this interview was saved and included in the analysis. The therapist interviews were transcribed verbatim by secretarial staff – for the published articles, the transcripts were cleaned for “hmmms,” long pauses, and other interruptions. To maintain my own connection to the recorded speech, I relistened to all interviews several times after the transcripts were presented by the secretarial staff. This approach allowed me to recall and note facets in the therapists' voices, as well as my own participation in the interview. All the occupational therapist and physiotherapist participants received a copy of their interview transcript by way of being consistent with member validation (Kvale & Brinkmann,

2009:255). Except for one comment on how embarrassing it was to read one's own statements in writing, none commented on the transcripts.

The 18 patient interviews, nine men and nine women, were conducted in July and August of 2009 (table 5). Patients were recruited by occupational therapist and physiotherapist staff. For inclusion, patients had to meet the following criteria: be admitted, be 65 or older, have been tested with standardized tests while admitted, speak Norwegian, and be able to consent to participation. Patients volunteering to participate after being approached by a physiotherapist or occupational therapist were contacted by the researcher. Three patients declined participation when approached by the researcher. The reasons they cited were fatigue (one patient) or reluctance to sign the consent form (two patients).

Table 5 Patient interviews

Patient interviews	SU	AG	Sum
Male patients	2	7	9
Female patients	5	4	9

Patient birth year ranged from 1915 to 1938 (average birth year 1927). Before starting the interview, the patients were told that there were no risks attached to their participation; in addition, they were told that their accounts could help improve the general understanding of older patients' experiences of being hospitalized. Confidentiality was also promised at this point. To avoid a direct association with staff and hospital, I did not wear the white coat during interviews with patients. I also emphasized that I had no affiliation with the hospital and that their participation would not affect their care. The latter information was especially important since I had previously been introduced to six of these patients while wearing a

white coat: I had observed two of the interviewed patients being tested, as well as ordinary patient-therapist interaction in an additional four patients. The interview guide for the patients' interviews consisted of three main topics: experience of being admitted to hospital, patient-therapist relationship, and experiences with standardized testing. Each topic had keywords, making sure I covered all aspects. Even though the interview guide was not followed strictly, in the patient interviews I tried to adhere to the interview guide as I felt this provided structure and helped to keep the patient "on-track" in the interview. These interviews were short, and varied from 11 to 39 minutes in length. On two occasions interviews were cut short; in one interview I discretely turned the tape recorder off and in the other interview the last part of the interview was not transcribed. This was done since these two patients went "off-track" and shared personal life stories not related to the interview topics. Many of the patient interviews were conducted bedside, the rest were conducted in the occupational therapist and physiotherapist training/kitchen facilities, and common rooms according to the patients' wishes. Patients' scores on MMSE, CDT, and TMT were collected after the interview. Hence, I had limited knowledge of each patient's scores while interviewing. I transcribed all patient interviews verbatim myself – to make the patients' accounts easier to read, speech elements such as "hmmm," laughter, and coughing were removed in the published articles. All patients were offered an interview transcript. All declined.

The interviewer's role

According to Holstein and Gubrium (2003:4) interviewers *"are deeply and unavoidably implicated in creating meanings that ostensibly reside within respondents."* Qualitative interview data are, accordingly, generated in dialogue, and to establish the accuracy of these data it is imperative to account for the context and reflect on the interviewer's influence

(Malterud, 2001). So, besides accounting for the structural issues relating to interviewing, attention must be paid to how meaning is created and affected in the interview setting.

At the time of the therapist interviews, I knew the 14 occupational therapists and physiotherapists relatively well; there was no significant age difference between us, and I had been regularly present at the two wards for a period of 3–4 months when conducting the interviews. These factors obviously affected both interviewer and interviewee. For me the interviews allowed for a deeper investigation into participants' experiences and a follow-up of incidents observed in the field. I found the relationship I had established with each therapist to be rewarding in the interview in the sense that the therapists knew me, the project aim, and they knew of my lack of schooling in health care. The relationship between us also allowed therapists to engage critically in interviews, rather than just passively responding. Examples of such engagement are apparent in therapist statements such as: *I don't know if you noticed* (article 2: 1173) or *I don't know if you observed this one guy who we walked with in the hallway* (article 2: 1174). These two therapists appealed to my presence in a situation to contextualize their responses. In the following interview excerpt the opposite is demonstrated (T = Therapist, I = Interviewer):

I: So, when people score high (and you say) "Yes, there is no significant fall risk here, but that does not mean that you will not fall" ... But I have rarely seen, or I have never seen that these have been followed-up on with another test – to test it further.

T: I have done it.

I: Yes, well, not while I've observed you.

T: No, but I do it.

I: So, what patient ... is it a special type?

T: Those patients that have fallen or experience problems with their balance and get a high score on BBS I always follow-up on. (...). (Rows 678–692)

While the two prior quotes illustrated therapists' drawing on my presence in the field to illustrate a point, the interview excerpt above demonstrates my probing on testing and test practice and being confronted by the therapist about the fact that I had not observed every aspect of her test practice.

Interviews will always vary according to the profile of the participant group, and the patient interviews were very different from the therapist interviews. Patients admitted to either the stroke unit or the acute geriatric ward are very ill, and although they felt up for and maybe even welcomed the social occasion of an interview, several showed signs of pain and reduced cognitive and physical abilities due to age and/or medical condition during interviews. The patient's medical condition was one of the concerns that demanded that I be sensitive and responsive to expressions and gestures throughout the interview. Another concern was the fact that patients in acute wards have short stays in hospital; there was no time to establish a relationship with the individual patient prior to the interview. Patients were recruited and interviewed the same day. Moreover, the hospital setting lacked the familiar and safe comfort the old person would have in a home setting. There was also the age difference between me and the patient to consider (Manderson et al., 2006). These ethical concerns and possible effects on the interview made it essential to be an empathetic listener, and to take a nonjudgmental stance in interviews (Cowles, 1988), but also to be attentive to the importance of the few first minutes of the interview: making a connection and establishing trust. I also aimed at keeping a positive and supportive tone, and also let the patients tell their story if they expressed such a need.

One of the first older patients I interviewed began to cry toward the end of the interview. I do not think it was so much the research questions as an overwhelming feeling of being ill and not knowing the cause – and the fact that someone had the time to listen to his story and frustrations. I sat with him for a long time. After I left, a nurse was notified about his distress. This was not the last time a patient became emotional during an interview, and prior readings on interviewing older persons (Jokinen, Lappalainen, Meriläinen, & Pelkonen, 2002; Wenger, 2003) as a vulnerable group (Russell, 1999; Truglio-Londrigan, Gallagher, Sosanya, & Hendrickson-Slack, 2006) were useful. Especially because these studies illustrate that even though the interviewees' vulnerability in the social world and in the hospital setting can be documented and expressed by themselves, the concept of vulnerability "*should not uncritically be transferred to an analysis of the research act*" (Russell, 1999:414). This means that, in practice, it may be misguided to conclude that an interview in this setting results solely from interviewer control. Following Russell's (1999) argument, imagining older interviewees as passive respondents leads attention away from the fact that, for the most part, they engaged actively in the interview, and thus they exercised power over the course of the research – they participated on their own terms and pursued own interests – which is best exemplified by those who refused to participate. Still, the distress some patients expressed was unexpected and upsetting. In hindsight, patients' distress might be due to a combination of medical condition, feelings of alienation in the hospital context, and the interview touching upon the issue of cognition. Cognition is likely to be considered what Corbin and Morse (2003) refer to as a sensitive topic. However, it should be noted that digressiveness was a more prominent feature in the interviews than distress was. Patients' digressing from the interview topic may have had to do with my ability to maintain their motivation on a research topic some found a bit odd. However, while patients could lose motivation to talk about the research topic, they could be very talkative on other subjects related to friends, family, and

past times. This observation corresponds with Jokinen et al.'s (2002) research experiences with older persons.

Research validation as a process

Validating the accuracy of qualitative research is discussed and underlined in the literature using numerous terms: *reliability*, *validity*, *credibility*, *transferability*, *dependability*, *trustworthiness*. Creswell (2013:250) considers many of these terms historical, but acknowledges their “staying power” in the methodological literature. Researchers are, therefore, recommended to reference the terms and strategies used in validating their research. In the following, I will lean on Creswell's (2013:243–253) approach. He emphasizes validation of qualitative data as a process or an assessment of the “accuracy” of the findings in which validation strategies are employed. This means that he, as Kvale and Brinkmann (2009:267) do, sees reports on research as a representation by the author.

Creswell's validation strategies pertinent to this project are, first, “*Prolonged engagement and persistent observation*” (2013:250). My fieldwork stretched over a period of time sufficient enough for me to build relationships with therapist participants. The therapists' daily routine was structured around patient encounters which enabled me to observe patient-therapist interaction until saturation was reached. This validation strategy is often viewed as fundamental in participant observation because it entails the building of relationships, learning the culture, and possibilities to check for misinformation. I have earlier discussed the limitations hospital fieldwork entails in terms of participation, but insist that hospital fieldwork too is validated through space, time, and relationship issues pertinent to prolonged engagement and observation. Despite limited available roles for a researcher, hospital fieldwork offers a possibility to focus on that which is relevant to the project and to check and

re-check potential misinformation. This brings me to the second validation strategy: “*triangulation*” (Creswell, 2013:215). Triangulation of data sources is understood as a validation strategy because it allows for a combination of sources. In this project, observational data and interview data were combined to (i) shed light on the themes presented, but also (ii) to assess the accuracy of what participants say they do (interview) and what they do (observations).

During fieldwork, observations and interpretations were discussed with participants as a member checking strategy (Creswell, 2013:252), which is similar to member validation described in Kvale and Brinkmann (2009:255). After fieldwork, in March 2010, a preliminary analysis of article 1 was presented to occupational therapists employed at the hospital (some participants and some not) as part of an audience validation strategy (Kvale & Brinkmann, 2009:255). In addition to these strategies, we were several researchers reading transcripts, negotiating codes, and analyzing the empirical material which opens up for a wider analytical approach (Malterud, 2012) and it helps keep the researchers honest (Creswell, 2013:251).

Ethical considerations: Informed consent and confidentiality

Hospital fieldwork provides an outlook on ethical issues not seen in many other fields; therefore, attentiveness to ethical questions and considerations has been maintained and visualized throughout this chapter: in the process of gaining access to the field, in field preparations, and in the researcher’s roles and responsibilities. While most ethical considerations in this chapter have been explained and discussed in the context they appeared (especially in the subsections on fieldwork and interviewing), I will in the following discuss two ethical concerns in particular: *Consent* as significant for inclusion in research and *confidentiality* as significant for the protection of research participants’ identity. The first is

discussed because of unforeseen challenges with regard to securing the consent of the older patients; the latter because it affected how the research results were presented in the articles.

The consent form used for the patients was a fully typed-up paper. For the most part, patients were content with my presentation and reading of the consent form. Occasionally, patients reacted to the dense writing and appeared anxious to sign without a confirmation from the therapist or me of the form's actual jurisdiction. Jokes like "*signing over money*" and testaments were popular. In a handful of patients, observation or interviewing was declined with reference to the signing of the consent form. These patients said they had no problem with being observed or interviewed, but were "*not willing to sign anything,*" as they said. One even said: "*Can't we just talk?*" possibly hoping to avoid the formal aspect introduced to the setting by the consent form. Researchers studying research practice have expressed reservations about ritualistic adherence to the process of securing informed consent. Consent is situated and contingent, and therefore a ritualistic approach might be inadequate (Dewing, 2002; Hellström et al., 2007; Sin, 2005). Cohen-Mansfield, Kerin, Pawlson, Lipson, and Holdridge (1988) noticed patients' reluctance to sign the consent form, and developed a strategy wherein verbal consent witnessed by a third party was considered sufficient for participation. My requirement for securing consent was defined externally, by the ethics committee and hospital's privacy protection, and it had to be in writing. Patients' remarks and questions presented above make their negotiation of what constitutes as adequate consent evident. But, unable to negotiate my requirement for consent, I chatted a bit and politely withdrew from the situation. Only if patients were unable to sign due to physical impairment was a therapist allowed to witness the verbal consent and sign in the patient's name.

In the following, efforts made to protect participants' identities are described. Research in a hospital context actualizes considerations regarding anonymity and confidentiality.

In the research context, confidentiality is taken to mean that identifiable information about individuals collected during the process of research will not be disclosed and that the identity of research participants will be protected through various processes designed to anonymize them (...).(…) In social research, anonymity is the vehicle by which confidentiality is operationalized. (Wiles, 2013:42)

The hospital's name or location in Norway has not been disclosed. Moreover, throughout the project, the need to protect identities and health information has been balanced against the wish to portray truthful situations, mainly by removing as much as possible of person characteristics in presenting data. The need to protect identities goes especially for the therapist staff. The occupational therapist and physiotherapist staffs on the two wards were small and had only a few men. Not indicating gender in presentations was, therefore, important. This means that the neutral term "therapist" is often used and, sometimes, if gender was indicated indirectly "he" was changed for "she." In the patient descriptions in article 1, birth year, gender, and test results are presented because, despite this information, the patient's identity is protected as they are part of a large patient pool admitted to the non-disclosed hospital. However, the patient's medical diagnoses have been omitted. Instead of using medical diagnoses, the patients' own descriptions were recorded: *"Why were you admitted to hospital?"* The patients' account is used to describe reason for admittance in article 1. Distinctive stories that can be linked to an individual have been avoided in the presentation of empirical data. All participants' identifiable data were safeguarded by assigning numbers to code observations and interviews. The codes were stored at the hospital.

5. Discussion

In this final chapter, the perspectives drawn upon in the articles are briefly revisited and research findings are tied together within an interactional framework. Each article provides insight into standardized testing as a face-to-face activity – and the purpose of this chapter is to emphasize the main points of this project and its knowledge contribution. The therapist-patient relationship will frame the discussion of findings and implications for practice.

A significant relationship

On the one hand, the findings of this project underscore that therapists acting as test administrators might experience a heightened tension between the demands of the test standard and the requirements of the individual patient when testing own patients, leading to potentially biased test administration. On the other hand, the fact that the therapists themselves administer standardized tests to own patients supplies them as therapists with significant patient information that in a number of ways goes beyond the designated test result. These two points, taken together with the patients' accounts of their experiences of the test encounter illustrate that standardized testing in the clinic is a complex activity.

In sum, the findings presented in the three articles and the interaction analysis of the test encounter in chapter 3 lend support to prior investigations into interaction in standardized testing which illustrate that testing should be understood as a collaborative production (Marlaire & Maynard, 1990; Suchman & Jordan, 1990). However, collaboration, in this particular setting, is best explained in terms of the important relationship between therapist and patient in the test encounter. Bridges, Flatley, and Meyer (2010) highlight the importance of this relationship when they document that older patients associate good or bad experiences with relational aspects of care. The importance of a well-functioning relationship between

therapist and patient finds support in a study by Ekdahl, Andersson, and Friedrichsen (2010), who found that among older patients, positive experiences, in particular, are associated with good communication and information, and not necessarily with participation in decision-making. Hall et al.'s (2010) study corroborates these statements when demonstrating that a good relationship appears to have a positive effect on treatment outcomes in physical rehabilitation settings. As a result, in the “we”-rationale of the therapist-patient a good relationship or good working alliance is of importance, not only for how the old patient experiences good care, but also for the patient's progress.

While a tension in standardized interaction is identified in a number of studies (e.g. Antaki, 1999; Antaki et al., 2002; Dingwall et al., 2013; Lee et al., 2003; Marlaire & Maynard, 1990; Maynard & Marlaire, 1992; Olufowote, 2011), it is seldom related, as done in this project, to the relationship between participants. In this geriatric setting, the relationship between therapist and patient is established during the admissions talk and it is normally sustained until the patient is discharged from the hospital. During this time the therapist and patient regularly engage in rehabilitation activities. In the context of a continuous and well-functioning therapist-patient relationship, as seems to be the case in the geriatric setting studied here, literal test administration might be perceived as robotic and insensitive (Antaki et al., 2002), and since the patient might also perceive standardized testing as a face-threatening act (Brown & Levinson, 1987:61–64), such an approach to testing could jeopardize the therapist-patient relationship, as well as affect the older patient's experiences of good care (Bridges et al., 2010) and treatment progress (Hall et al., 2010).

This thesis contributes to prior research on standardized interaction by demonstrating how the twin position (the two “we”-rationales) of the therapist test administrator possibly heightens

the tension in standardized testing, and that, in test practice, the tension is reduced by the therapists' use of relational competence (Nygren, 2004; Spitzberg, 1993). The interactional approach applied in this thesis unveils how test administrators depart from standardization as a response to patients' needs. As such, departures from standardization express the therapists' mission of care.

Departures from standardization as consideration?

Departures from standardization can threaten the validity and reliability of any standardized form (Houtkoop-Steenstra, 2000; Maynard et al., 2002). Departures might also have individual consequences for the delivery of care services; for example, departures intended to prompt better answers might increase the test-taker's score, but simultaneously reduce the test-taker's access to public services and treatment (Antaki, 1999; Antaki et al., 2002).

Drawing on these insights, this thesis highlights the interactional aspects leading to departures. The question remains why test administrators chose to depart from the standard – what is in it for the test administrator? In light of the findings of this project, this particular question is best answered when linked to the experiences of the test-taker.

Nordenfelt's concept dignity of identity, as used in article 1, provides a picture of the older patients' experiences and emotional reactions after being tested cognitively. Standardized testing might make the patient aware of lost skills or functional abilities: for instance, that they are unable to subtract or remember the three named prompts (house, rabbit, train) in the MMSE. However, their accounts illustrate that experiences of cognitive testing are not directly linked to standardization or reduced possibilities for impression management, but rather are linked to performance pressure, age and, occasionally, medical condition. Loss of function is also experienced in light of personal expectations, relationships, life history, and

life goals (as seen in Gubrium, Rittman, Williams, Young, & Boylstein, 2003). Dignity of identity is connected to experiences of change in body and mind – making it an appropriate perspective in the context of illness and ageing where irreversible loss of function can be central. The findings in article 1 illustrate that patient's might view themselves differently after a test encounter, thereby emphasizing in standardized testing what Goffman referred to as fatefulness ([1967]1982:161–170).

Nordenfelt (2004) links dignity of identity to the individual's self-image and states that dignity of identity can come and go as a result of the deeds of others. In stating that people's feeling of worth is tied to how others look upon them, Nordenfelt opens up for an interactional understanding of dignity of identity. Whereas Goffman's facework operates with the counterparts "saving face" and "losing face," Nordenfelt refers to dignity of identity as a position on a value scale (Nordenfelt, 2004; Nordenfelt & Edgar, 2005) and not explicitly in terms of a dichotomy. However, loss of dignity (via humiliation) and maintained dignity can be understood as counterparts to "losing face" (via embarrassment) and "saving face."

Drawing a parallel between the two approaches allows both participants' struggle for dignity in the test encounter to surface. While Nordenfelt tends to emphasize the impact the disrespectful and cruel acts of others have on an individual's dignity, Goffman's facework captures how the therapist test administrators (here understood as "the other") struggle, not only to save own face, but to save patients' face in the test encounter. Therapists' accounts illustrate that they take responsibility for the patient's emotions and dignity of identity by providing a good atmosphere, withholding (negative) information, and sometimes departing from the test standard (article 2). Departures from standardization can, in light of Goffman and Nordenfelt, be viewed as acts of consideration – face-saving acts stemming from mutual consideration or the "rule of considerateness" (Goffman, [1967]1982:10–11). Similar to the

findings of Antaki et al. (2002), our findings in article 2 demonstrate how the therapists try to be helpful – departures from standardization appear principally as motivations, commending correct responses, giving hints, or giving the test-taker a chance to correct a wrong move on the TMT (article 2). These findings corresponds with Brown and Levinson’s (1987) understanding of politeness. The important thing to note, however, is the fact that despite the test administrators’ efforts and helpful departures, some test-takers still experienced cognitive testing as a threat to their dignity of identity.

Information as contextualization

There are two aspects of the test process that, in varying degrees, have been touched upon in all three articles: First, the lack of information provided to the test-taker going into the test encounter (articles 1 and 2). Second, the therapists’ contextualizing of test feedback to patients and colleagues (articles 2 and 3). Both aspects are in the following recognized as a form of contextualisation.

A lack of, or lacking, information provided to patients on the test process was noted in field observations, in therapists’ accounts, and in patients’ accounts. The patients’ accounts illustrated that several did not fully understand the significance of the cognitive testing based on the therapist’s introduction. This particular finding will be reviewed later, in the subsection that concerns implications for practice. For now, the focus remains on the second aspect: contextualizing of test feedback. In this project, it was observed that test scores, in the form of mere numbers, seldom were used in patient communication – rather, the therapist would contextualize the scores and, as such, aim at making the test result meaningful for the patient’s treatment and/or home life. Contextualized test information was also, to some extent, provided to colleagues in terms of concerns and typologies, such as “reckless” and “careful”

(article 3). Contextualized test information is a merging of two different components of test information, objective and subjective, and in the overlapping of these components, patient characteristics were often made more relevant than test scores were (article 3).

Contextualisation is not considered a departure from standardization by itself, but it can be understood in terms of the continuous facework that the therapists engage in for the patient. Therapists' active contextualization might neutralize the negative impact unsuccessful impression management can have had on the patient's image of self – either by normalizing it, exaggerating the positive parts, or playing it down. Contextualizing information functions, in this way, also as a means to preserve the therapist-patient relationship.

Implications for practice – framing the test experience

Having devoted much space in this thesis to the tension in standardized testing and departures from standard, this subsection on implications for practice will focus on another part of test practice: the introduction to the test. In the articles, it has been illustrated that therapists conflate, and under-communicate, the difference between care activities (such as the admissions talk) and testing when introducing a test to the patient. This is possibly done to minimize the tension inherent in face-to-face standardized testing of own patients, to avoid patient stress, and to secure patient compliance. However, from the patient's point of view, it seems as if the test encounter is not defined properly – and in many cases, as emphasized in article 1, the test experience was not fully understood until it was over. This lack of situational definition may further limit the patients' possibilities for impression management and, as such, enhance the threat the test experience poses to dignity of identity and, more specifically, to their self-image. Likewise, for patients, failure to differentiate correctly between testing and other clinical interactions can have discernible consequences for their ability to give an

informed consent. The patients might agree to something, such as standardized testing, without fully understanding what it is they agreed to do.

The rationale and aims of standardized testing are something older patients in Norway might be unfamiliar with. In this regard, drawing the patients' attention to the difference between standardized testing and care could facilitate test administration. Hallowell et al.'s (2009) study on the conflicting demands of clinician researchers parallels, in many ways, the challenges of therapist test administrators – both professionals must carry out activities that stem from different epistemological orientations. The study illustrates how clinician researchers use boundary work (Gieryn, 1983) to draw their patients' attention to the distinction between research and care. In fact, Hallowell et al. (2009) argue that boundary work (or ring-fencing conflicting activities) enables a better management of conflicting roles and duties in activities. More importantly, it makes the difference in activities known to the patient as a spatio-temporal boundary between “what we did then” and “what we will do now.” Helping patients to understand their responsibilities during the test could lend assistance to the test administrator in making testing successful and less face-threatening. While the patient's awareness of the boundary is important for gaining consent – this approach places a lot of weight on the patients' ability to differentiate between testing and care. In the context of this project, acute geriatric care, patients display health problems associated with a loss of physical and cognitive functional ability. If less focus is placed on the distinction (the why) and more on the procedures (the what) the patients' uncertainty about the rationale of the test encounter might be lessened (Hallowell et al., 2009). In the empirical material of this project, the “what” focus is often evident in the therapists' efforts to contextualize test feedback. The test feedback is less about why the patients were tested, and more about what the test revealed and what this means for the patient's daily life. A similar

approach to the introduction to the test might enable patients to give a proper informed consent or refuse testing.

Concluding remarks

As mentioned in chapter one of this thesis, standardized testing seems to have long avoided a critical debate in health and medicine. If not actively debated and regularly reviewed, test administration and score interpretation can lapse into a pattern of taken-for-grantedness – conceivably triggering local variations. However, nothing suggests that therapists, whose test administration is discussed here, take test activities for granted. Rather, bearing in mind the challenges faced by test administrators in testing and scoring their own patients, their actions seem characteristic of clinical judgement and reasoning.

Nevertheless, this project's findings clearly reveal areas that from a psychometric standpoint would raise concerns about the scores' reliability and validity. In this thesis and in the articles, these quantitative concerns have been bracketed. Instead, standardized interaction, in general, and administrative challenges, in particular, have been highlighted and analyzed. This focus on interactional challenges does not mean that the abandonment of standardized tests has been pursued. Standardized tests are here to stay – and by using Goffman to underline the interactional challenges in testing own patients, this project contributes to renewed knowledge and awareness of the often-neglected interactional challenges in standardized testing. A heightened awareness of the collaborative production behind test results might lead test administrators to see their administration and their patients' experiences differently. As such, it might even encourage them to improve their own test administration and better the older patients' experience of cognitive testing.

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Articles 1–3

RESEARCH ARTICLE

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Everyday uses of standardized test information in a geriatric setting: a qualitative study exploring occupational therapist and physiotherapist test administrators' justifications

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Abstract

Background: Health professionals are required to collect data from standardized tests when assessing older patients' functional ability. Such data provide quantifiable documentation on health outcomes. Little is known, however, about how physiotherapists and occupational therapists who administer standardized tests use test information in their daily clinical work. This article aims to investigate how test administrators in a geriatric setting justify the everyday use of standardized test information.

Methods: Qualitative study of physiotherapists and occupational therapists on two geriatric hospital wards in Norway that routinely tested their patients with standardized tests. Data draw on seven months of fieldwork, semi-structured interviews with eight physiotherapists and six occupational therapists (12 female, two male), as well as observations of 26 test situations. Data were analyzed using Systematic Text Condensation.

Results: We identified two test information components in everyday use among physiotherapist and occupational therapist test administrators. While the primary component drew on the test administrators' subjective observations during testing, the secondary component encompassed the communication of objective test results and test performance.

Conclusions: The results of this study illustrate the overlap between objective and subjective data in everyday practice. In clinical practice, by way of the clinicians' gaze on how the patient functions, the subjective and objective components of test information are merged, allowing individual characteristics to be noticed and made relevant as test performance justifications and as rationales in the overall communication of patient needs.

Keywords: Standardized testing, Physiotherapist, Occupational therapist, Professional practice, Information use, Geriatric patients, Qualitative research, Fieldwork, Interviews

Background

Standardized testing as a diagnostic activity in clinical settings is commonly thought of as a process involving three steps [1]. The first step is test selection, a step that has received some research attention even though it is not uncommon that medical institutions administer pre-chosen batteries of standardized tests to all suitable patients. The second step, which entails the administration

and scoring of these tests, has also been researched although not to the same extent. The third step involves interpretation of test results. In this article, interpretation of results in relation to patients' observed performance is the focus, as is the everyday use of test information which, we would argue, could be regarded as the fourth step of testing. By suggesting a fourth step, we want to draw attention to the fact that the physiotherapist (PT) and occupational therapist (OT) test administrators' work does not end with the interpretation of test results. Test information, as addressed in this article, emerges in the form of scores and professional opinions that unavoidably build on test

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selection, test administration, and test interpretation. Test information is, thus, both a judgment and an outcome of processes of decision making [2].

By focusing on how test administrators in acute geriatric settings justify the use of test information in their everyday practice, this article investigates the complexities of everyday test information use, complexities that are particularly relevant when test administrators also are OTs and PTs who are responsible for parts of the patients' health care. This focus is partly driven by the fact that test information can be used to determine level of impairment, disability, or activity since test information offers quantifiable documentation on patients' functional ability. Test information can also be used to inform of and to monitor outcomes and, in some cases, to predict treatment outcomes [3]. Still, regardless of the multiple possibilities that test information offers, the clinical significance of using such information depends not on how it *can* be used but on how it *is* in fact used in a geriatric setting. The article focuses, therefore, on the latter.

Using objective data while maintaining the clinician's gaze

Whereas standardized testing has a long history in most medical specialties, non-standardized tests, informal interviews, and unstructured observation have been favored in OT and PT practice [4]. However, due to the implementation of evidence-based practice, a significant increase in the use of standardized tests is also noted in these two fields. This increase in testing activities is likely to continue, since health care professionals in general are under pressure to demonstrate clinical and cost effectiveness [5]. In any case, important to note is that the increase in standardized testing is not only about costs and effectiveness, but also about providing objective knowledge on patients' health status [6,7]. Objective knowledge is often directly associated with quality and professional consistency in health care.

The traditional distinction between "objective" and "subjective" has roots in Cartesian philosophy, but it was the insights of Foucault in *The Birth of the Clinic* [8] that visualized the historic turn for objectivity in health care. Departing from the development of a diagnostic process built progressively on pathology, Foucault tells us of the medical doctors' clinical "gaze" enabling them via pathological findings to see the patients objectively. Seeing objectively is here understood as being able to provide evidence on disease via observable and measurable changes in the physical body. Nowadays, objectivity is maintained through standardization; "*standards aim at making actions comparable over time and space; they are mobile and stable, and can be combined with other resources*" (p273) [9]. Not all standardized tests are diagnostic tools, but in health care, their main function is

nonetheless to supplement the diagnostic process with an objective estimate of health status. Thornquist [7] notes, however, that PTs did not make a historic turn for objectivity, but upheld a clinical "gaze" that focuses on how the patient *functions*. The same functional orientation, though with an emphasis on daily living, is recognizable in OT practice and guidelines [10]. Thornquist [7] underscores that whereas the diagnostic process is recognized as being decontextualized, a therapist's functional perspective takes the subjective experience, and the context, of the patient into consideration. This focus on patients' subjective experiences, Thornquist argues, was not considered valid in the medical field because subjective experiences could not be measured and quantified. Almost ten years later, Sullivan explores what he calls a shift in current medical practice as he notes that patients' subjective experience is called "*back into the center of clinical medicine*" (p1595) [6]. Worth noting in this regard is the fact that patients' subjective experience has always had a strong foothold in geriatrics because preservation of functioning remains fundamental to successful treatment [11,12], but what is different in what Sullivan [6] refers to as "*the new subjective medicine*" is that patients' subjective experience is quantified in objective health indicators. The medical notion of objectivity is thus being applied to enhance and legitimize subjective experience, such as the impact of functional ability on daily living and on quality of life measures. It is against this background of diverging professional traditions and expectations for data collection in health care that OTs and PTs are increasingly expected to collect and use quantifiable data.

Critical voices claim that without objective and systematic measures, professional health care is dependent on subjective skills and opinions – and, also, that the ability of clinicians to estimate functioning without such measures might be inadequate [13,14]. DeLuca and Putnam [15] deem the professional/technician model – i.e., the use of trained technical personnel to administer tests for health professionals – an efficient and cost-effective part of health care. More importantly, DeLuca and Putnam claim that the model allows for a more objective data collection, overcoming the potential for the professionals' administration to be biased. Perhaps this is the case, but the professional/technician model does not address or solve the interactional challenges bound up in standardized administration.

Research into the interactional aspects of standardization has underscored that professionals and technicians alike experience a tension between what standardization demands and what individualization requires [16-25]. The result is often that the administrator departs from standardized administration. Any departure from standardized administration may affect results, results that, in turn, may limit the patients' choice of, or access to, public services

and treatment. It is these potentially dire consequences that Dingwall et al. refer to when they remind the reader that “[a test] is *only as good as what follows*” [18]. While this cause and effect argument is valid in most discussions on standardized testing, it is the tension in standardized administration set forth in these studies that represents the main challenge. We suggest that standardized administration should be understood in terms of its interactional characteristics rather than as an uninterrupted pathway to objective data.

Against the background of prior interactional work on the challenges of standardization, it seems appropriate to move our research focus to the everyday use of standardized test information and pose the following research questions: What information do the OT and PT test administrator collect from standardized tests? How do OT and PT test administrators use this information in their clinical work? While Tyson et al.'s [26] and Greenhalgh et al.'s [27] investigations targeted the uses of measurement tools and outcomes in multidisciplinary teams, we lack knowledge of how therapist test administrators use test information in their clinical work. To date, no studies have had access to hospital test situations and interviewed therapist test administrators to explore their justifications concerning the use of test information. This article addresses this research gap by exploring the everyday uses of test information from the perspectives of the OT and PT test administrators.

Methods

Fieldwork and participants

Data were collected on an acute geriatric ward and a stroke unit by the first author using fieldwork techniques. Observation and informal and formal interviews were undertaken over a seven-month period in 2009. A total of six OTs and eight PTs, two men and 12 women, participated in the study. They were from 22 to 54 years old and had from three months to 25 years of experience working with geriatric patients. Observations were made twice a week and organized so that the researcher spent one day a week on each ward following one of the 14 therapists around the ward in his or her daily activities. Approximately 170 hours were spent observing OTs and PTs work with nearly 90 geriatric patients, including observing 26 test situations.

Geriatric patients are generally associated with diminishing functional ability, reduced social network, and problems regarding the home situation [12]. OTs and PTs' contributions are significant in the broad and multidisciplinary assessment geriatric patients need, and as part of their professional group's responsibility in assessing patients' functional abilities, they routinely conducted standardized tests. Most tests were delivered as

part of a pre-chosen test battery, so in the 26 test situations, we observed close to 60 test administrations. Table 1 provides a summary of the standardized tests used in routine patient care. The test situations lasted about 30 minutes. Only patient, therapist, and researcher were present in the test situation, but on a few occasions, testing was conducted in a large training room where other patients and therapists were training. Short field notes were taken during observation and were expanded into more detailed descriptions at the end of the observation. The observational data are, in this article, used to contextualize and expand on the participants' statements as they appeared in the interviews.

Semi-structured interviews of approximately one hour's duration were conducted in Norwegian with all 14 participants towards the end of the fieldwork period. For the purpose of this article, six key questions eliciting the participants' perspectives on standardized testing were relevant. These questions were developed following long-term observation and tapped into contextual factors, professional judgment, issues of standardization, test feedback, as well as test utility. Except for one interview (in which the microphone batteries failed), all interviews were audiotaped and transcribed verbatim by secretarial staff. Quotes are translated by the first author and identified by profession (OT/PT) and by a number indicating the order in which the therapists were interviewed.

Data analysis

In analyzing the interview transcripts, we used Systematic Text Condensation [36]. Systematic Text Condensation consists of four steps: (i) Independently read the transcripts to gain a contextualized impression of the interviews, and highlight preconceptions. (ii) Identify and code units of meaning – negotiate these until general agreement on the coding is achieved. (iii) Condense the meaning in the coded groups. (iv) Generalize descriptions reflecting therapists' everyday use of standardized test information. Initially, we identified a series of smaller coded groups, each indicating a specific use of test information. However, as separate units these coded groups did not indicate how OTs and PTs actually oriented to test information. We then arranged the coded groups under the two summaries in order to indicate how patients' subjective experiences were taken into account and, also, to indicate the role of test scores in communication.

Malterud [36] highlights the aspect of researchers' preconceptions. In this study, the first author is a social anthropologist with no medical or health-related background. The second author is a sociologist and social gerontologist. The third author is a RN and the fourth author is a PT, both with clinical experience of working with older persons and their health care needs. The researchers' different preconceptions of the geriatric

Table 1 Summary of standardized tests used in routine patient care

Ward	Standardized test	Administrator	Description	Scoring
Acute geriatric	Berg balance scale (BBS) [28]	PT	A test of 14 items to test balance and risk of falling in older adults.	A five-point scale, ranging from 0 to 4. Zero is lowest level and 4 the highest level of function. Total Score = 56.
	Timed "up and go" test (TUG) [29]	PT	Tests dynamic balance and mobility skills in older adults.	Timed in seconds. Lower than 10 seconds is normal. More than 10 seconds indicates reduced mobility.
	Mini-mental score examination (MMSE) [30]	OT	Samples cognitive functions such as arithmetic and recall ability, short-term memory, and orientation to time and place.	Full score is 30 points. Scores greater than or equal to 25 indicate normal cognition.
	Clock drawing test (CDT) [32]	OT	Screens cognitive and perceptual functions.	A modified version of Shulman [31] was used to rank clock drawings on a scale of 0 to 5, with 5 as best score and 0 as worst.
Stroke unit	Mini-mental score examination	OT		
	Clock drawing test	OT		
	Trail making test A and B (TMT) [33,34]	OT	Tests visual attention and task switching.	Timed in seconds. Higher scores reveal greater impairment.
	Motor assessment scale (MAS) [35]	PT	Tests motor function and muscle tone in stroke patients.	Each item is scored on a seven-point scale from 0 to 6.

The noted abbreviations will be used in presenting our findings.

context in general and of testing in particular proved to be valuable in interpreting the material. For instance, the fourth author has experience introducing and implementing standardized tests in PT practice and her preconceptions on the intention behind test implementation and understanding of test theory provided fruitful inputs in the interpretation process.

Ethical considerations

The Regional Committee for Medical Research Ethics in Norway and the privacy protection ombudsman at the hospital gave ethical approval for the project. The therapists and other staff on the two wards were informed about the study in writing and verbally. Written informed consent was obtained from the 14 therapists and from all observed patients. The therapists recruited patients with ability to consent. No observation was undertaken until written consent was given. The PT and OT interviews commenced with verbal information about the study's purpose and the participants' right to withdraw, according to the Helsinki Declaration. All therapists received a copy of their transcript and were invited to comment. None commented.

Results

The therapists interviewed are all expected by their institutions to administer standardized tests to all patients as part of their health assessment routines (Table 1). Test scores are entered into patients' charts, and some test scores are also registered in hospital registers for research purposes. Overall, the administration of these tests was deemed

to be time-consuming and some of the interviewed PTs and OTs stated that, at times, they felt that other rehabilitation-related activities were more important for the patients. This notion was strengthened by the fact that patients' short stays at the wards seldom allowed for direct follow-up of test information. The findings that follow must be understood against the tension OT and PT test administrators experience in the test situation [16] as they navigate between the standardized procedures and the holistic orientation characteristic of best practice in geriatric patient care.

The clinician's gaze

OTs and PTs maintained that the test situation *per se* provided them with significant patient information. The test situation functioned as an arena for clinically observing the patient in action/interaction with the therapist. In addition to presenting the test's stimuli (questions and tasks) and scoring the patient's successive responses and performance, therapists explained that they would typically notice patients' physical and cognitive functioning, coping strategies, emotional state, behavior, and ability to take instructions.

The therapists agreed that observing patients during testing provided them, as test administrators, with information on the patients' functional status – a basic functional assessment:

PT2: (...) so, we observe basic functional ability: if they can sit, if they can stand, if they can walk, and if they can move about. That's sort of what you observe in all

(tests), also in BBS and TUG. (...). And something else that is common to be aware of is respiration. Then you'll see ... you'll see how they breathe; heh-heh-heh (makes rapid breathing noises) high or if they do costal or abdominal breathing for example, or if they ... because we often measure (oxygen) saturation on their finger. (...). Yes, (...) many need extra oxygen during activity. (Rows 541–549)

As implied in the quote above, the level of activity in physical testing was physically demanding for some patients. In fact, the level of physical activity in these tests was mentioned by several PTs as a beneficial by-product of testing, because the tests gave the patient a good workout. Thus, there was no need for the PT to treat the patient further on the test day. Another, and perhaps clinically more important, by-product of testing was that the functional ability of patients, observed while testing, could help therapists see what treatment measures the patient needed. Hence, observing patients' impairments, such as potential respiration problems illustrated in the quote above, would trigger ideas for training schemes and aids needs. Another PT explained how observation of test performance was linked to training needs:

PT9: It gives me additional information, and it can also give me tips on what we should work with. (...). And you may see that he has troubles with the step (an elevated platform in BBS) and maybe we need to work a little more on that particular part of his balance, right? Or, I saw that the pace in TUG was much better when he used his walker than when he didn't. So, that means that he's able to increase his pace, but that he's afraid to when he walks without support. (Rows 923–929)

This PT not only noticed what sort of balance training the patient needs, but also remarked the patient's coping strategy, walking at a slower pace when walking without a walker. The therapists provided several similar examples of how patient strategies were observed in the test situation. The cognitive testing in MMSE offered an interesting example. The tenth question in MMSE is, "What floor of this building are you on?" Patients' reasoning on this particular question was noticed:

OT10: Some are just so clever at this; "I arrived on the first floor and I cannot remember being wheeled up or down, no, I think I'll go with the first floor." And then, I consider them to be pretty clear-headed, but (of course, it is possible that upon admittance) they were placed in an elevator and just half-awake, and then you just don't have a chance to keep track. (Rows 602–605)

Being attentive to patients' strategies could also reveal their actual emotional state. Therapists remarked that some patients were insecure and scared upon entering the test situation, but that they played tough and defensive. This behavior was especially noticeable when testing cognitive abilities:

OT12: (...) the ones that have experienced loss of memory and have had some a-ha moments where they've forgotten things – almost (started) a fire and things like that, they can be very like ... refuse and not wanting to take it (the test). Because they're scared that we'll find out that it's become worse. Some are acting very "but I know this." If we ever get to (the MMSE question), "What country are you in?" (They'll say), "What a stupid question, right?" (I'll say) "Yes, can you answer it?" Because we need them to answer, and then you understand that OK here is [the patient] trying to hide something because the right answer isn't coming. (Rows 568–575)

Notice also how the therapist in this quote reasons about patients' reluctance, but still justifies pressing for an answer.

Other test observations described by the therapists highlighted the patients' physical behavior in test activities: Were patients fast or slow in their bodily movements? Examples of this were often visible in the physical testing; for example, the patient would finish the TUG quickly, but the therapist noticed that the patient almost fell several times during testing. In colleague communication, therapists often referred to such patients as "reckless" – not fully aware of their own physical limitations. Others were slow in their movements, and made sure they did not fall by walking slowly or checking that the chair was in the right position before sitting down. These patients were often referred to as "careful." "Reckless" and "careful" indicated a mismatch between the patient's capacity and behavior. Therapists also noted the cognitive aspect of patient behavior: for example, if the patient was adequate in conversation, or how well the patient comprehended test instructions.

Being a patient's assigned therapist also entailed interaction (i.e., admission talk, training, and rehabilitation activities) with the patient outside the test situation. Therapists maintained that observations from outside the test situation often confirmed observations made in the test situation, but as one therapist pointed out, the opposite could also happen:

PT13: [Y]ou turn away for a moment and suddenly they may be trying to grab a magazine lying on the table or another typical activity – and then suddenly their arm is as good as new. But when you

are testing – oh, no then it's not any good. But these things are kind of discovered because we see the patient during the whole day, right? (Rows 733–737)

The OTs had an additional arena for observation because they habitually observed patients in morning care routines and kitchen safety training. These observations would typically serve as a backdrop for considering patient performance/behavior in the test situation.

The economy of test score communication

Test scores are objective measures, but therapists seemed reluctant to accept that quantification was a particularly important aspect of their assessment. Instead, test scores were described as only providing a black and white statement, unable to capture all aspects needed in assessing geriatric patients and, thus, tests were not considered informative enough from the clinicians' perspective. However, end scores still played a key role in everyday clinical communication.

Therapists claimed that standardized testing functioned as “an assurance of quality of what we do, really. That it's not just a discretionary, subjective assessment of things, but, like, doing a standardized test is maybe making it a bit more reliable too” (PT11 Rows 614–616). In this quote, the notion of standardized tests as an objective base in professional statements is highlighted. It appears that, objective-based statements are considered to be better than subjective-based statements. And, although a few therapists argued that there must be a balance between subjective and objective statements, most therapists emphasized the test scores' ability to support professional statements:

PT11: I feel that, in many ways, if we've done that test I've more weight in my argument when I call the district needs assessment office and order further physiotherapy (for the patient). Then I can, sort of, say that it isn't just that the patient has reduced balance – that you've observed it, but you've also taken a standardized test which shows ... (Rows 594–598)

To further underline the ambiguity surrounding objectivity and subjectivity, one therapist started out comparing test scores to results from blood tests and computed tomography (CT) to illustrate that test scores are, in fact, as objective as results from blood tests or CTs, but ended the quote pondering the professional dilemma that follows standardized testing:

OT6: (...) they will take a blood test, they will take CTs of the head, [but] you will not see the cognitive impairments there. So, we need, sort of, something that can show that you do have cognitive impairments; that

you have a problem conceptualizing time and then, the standardized tests are a good thing. (...) So, it's somewhat the same thing, that these tests are important to provide the patient with the right treatment. At the same time, you cannot use them at random and you need to exercise professional judgment and be ... understand that the patient is tired and sleepy – so, you need to consider that, and if the patient is unmotivated, then that may affect the result. (Rows 516–526)

So, despite being aware of the possible limitations, and being somewhat critical towards quantifiable results from testing, therapists maintained that such results carry weight. The weight was in part linked to a medical system in which the quantifiable and objective were considered superior to the qualitative and subjective:

OT8: That's always, sort of, been the good and the bad of medicine – that they've demanded numbers to ensure that something is true or not, right? And if you cannot quantify ... things concerning quality of life and pain and such, then it's harder to research it. But, the doctors are fond of everything that can be quantified, and what the doctors like propagates downwards in the system. That's the way it is. (Rows 712–717)

But, weight was also given to the meaning inherent in end scores, as these described a specific level of functional ability. When therapists had experience with a particular test and its scoring system, they could define level of functional ability by score information only. One therapist highlighted this ability and exemplified how end scores, as opposed to a subjective statement on functional ability, left neither room nor need for interpretation:

PT11: (...) sometimes you may read an assessment where it says that the patient has reduced balance, but, OK, what is reduced balance? Does that mean that he, sometimes, needs to take an extra step when walking, or is he like really unsteady and walks, sort of, like a drunken sailor? That's when it's useful to have that number, saying that ... yes, maybe it's 45 points or it's 5. (Referring to BBS scores. Rows 640–645)

Comparably, the therapists would look up earlier test scores on readmitted patients and compare them to new test scores. Two score sets illustrated the patients' functional development by indicating progress, or lack thereof, over time.

This ability to understand scores was also emphasized as positive because it was knowledge most clinicians on the ward had in common: “So, if you were to talk about a benefit then you've got shared understanding”

(OT8 Rows 731–732). In fact, it was the test scores' position as objective and as a platform for shared professional understanding that made them function in communication with patients, colleagues, and districts' needs assessment offices. A functional score may be used to assess patients' needs for services and to allocate in-home aid equipment, placements in nursing homes, and other public health services in Norway. Thus, although we observed that OTs were somewhat reluctant to use scores in patient communication, in the interviews they stated that reluctance was mainly an issue if patients were frail or had low scores. PTs used test scores to communicate the age-appropriate function of patients or to illustrate fall risk. However, PTs communicated a score to patients with certain reservations well aware that:

PT1: It doesn't mean anything to them, and I have to explain a little what it means. (...) Then I explain a little what the number means in relation to – in relation to the whole scale. And what the risk is, but then I'll draw on ... if I have seen the patient a lot I might know what the problem is." (Refers to BBS. Rows 1104–1110).

Scores would be related to the patient in the following manner:

PT4: We talk a lot about the fact that "this test shows that you have a risk of falling and you have fallen, so this agrees well." And we usually say something about the use of walking aids, and I say that "I see you're good at using the walker and that you check that you sit down in the chair properly, because that's what you need to do now. If you can (continue to) do that I'll not worry." (Rows 685–689)

As shown in the two quotes above, the quantifiable aspect of testing was not the main message to the patient. The few times therapists presented the end score as a main message seemed to be in communication with the district's needs assessment office, because they knew that a low score could prompt allocation of public services. Still, therapists expressed reluctance toward this particular use of scores because it might entail testing patients who normally might be deemed unfit for testing:

OT8: I've had the district's needs assessment office wanting MMSE to see if they can place the patient in a locked ward – and when you're that impaired cognitively, then you'll score down towards 15, 16. And then it's a little ... what's the purpose of testing patients when we know that they're pretty demented? (Rows 695–698)

Nevertheless, seeing that not all health care providers were familiar with tests' scoring systems and that no end

score could spell out the patient's specific impairment, therapists habitually commented on the end score in writing: "We never just write the end score in the chart. We always state what the problem is, because we are more concerned with the problem than with the actual end score" (OT6 Rows 514–516). Also in verbal communication, for example, with the multidisciplinary team, end scores were likely to be commented upon:

OT12: (...) it is important to me that you don't say, in multidisciplinary meetings and reports, "27 of 30" and nothing more. You need to say what it is they scored poorly on and assess, that, yes, [the patient] was not oriented to place. (...) To me there is a difference between, like, you say one day wrong on date and day (questions) when you, like, are in a hospital and have been there for many weeks. Really, I'm not on top of dates and stuff every single day. You sort of need to consider this. But, if you say you're in England when you're in Norway, well, that's a bit different. So, I think it is quite important to present what it was they scored poorly on, in order to get a more holistic impression of the patient. (Rows 443–453)

A clarification of test scores, such as the clarification presented above, could help other health professionals localize and assess the clinical significance of a patient's impairment. Testing benefitted from clarifications when therapists found that the end score did not approximate the real-life person – when there was a mismatch between observed behavior and end score.

OT14: (...) I had this patient who scored well on the MMSE, but when she was to brew a pot of coffee she didn't have a clue how to do it. She didn't understand why the water started to flow through and stuff. She'd turned the knob without noticing it. The same thing happened twice – and, like, according to the test score she should be pretty alert. (Rows 609–614)

Mismatches, such as this one, would typically be written down by the PT or OT as a caveat in the test form, communicated to the multidisciplinary team and, most likely, prompt further testing. Mismatches could, also, have an impact on how test results were communicated to the patient. For instance, if a patient scored high, but was considered reckless, the therapist would communicate the necessity of being more careful.

Discussion

The tests delivered in this setting focused on loss of functional ability or on level of impairment, but since their administration is standardized, the results will not capture the individual characteristics of the patient [3].

Yet, this study's findings suggest that individual patient characteristics are noticed and made relevant in the clinical use of test information.

The two components of test information

The primary component of test information is gathered in the test situation, where it is apparent that therapists are not only test administrators; they are also observers. The therapists see the individual they test; they see their patients. During testing, they take in the patient's physical and cognitive functioning, emotional state, coping strategies, conduct, and ability to take instructions. In fact, these observations are, in the therapists' accounts, often presented as the therapists' key concerns and they can be used to support or challenge decisions regarding patients' forthcoming activity and treatment plan: the patient is sad, the patient needs to use a walker, or the patient is slow/fast and careful/reckless. Such concerns and typologies resonate with Thornquist's [7] portrayal of therapists as attentive to patients' subjective experiences and to their functional abilities. On the other hand, concerns, such as the ones presented here, may also influence the clinicians' ability to score their own patients accurately [37,38]. It may be the therapists' twin position, as test administrators and as the particular patient's therapists, that makes them attuned to collecting information that extends beyond what standardized testing deems significant. One example of therapists' collecting information that extends beyond the standard is provided when therapists note patients' coping strategies; another example is provided by the therapist who claimed patients' malingering in tests was discovered *"because we see the patient during the whole day"* (PT13). If tests were delivered by a technician, as suggested by DeLuca and Putnam [15], this information would likely be lost. In actual fact, the therapists' broad approach to test data suggests that they do not heed the underlying distinction between testing and assessments; the subjective component present in health assessments should be absent in standardized testing [39].

The secondary component of information falls, principally, in the category of quantifiable test data: end scores. Scores and end scores provide the health care professional with quantifiable documentation on patients' *status quo* functional ability. Insights on how therapists use quantifiable data can be summed up by Fujiura and Rutkowski-Kmitta's statement: *"Numerical associations facilitate independent verification, standardization, and economy of communication"* (p92) [40]. There were no independent verification procedures in this clinical setting, because no disinterested third party was involved in test interpretation. However, involvement by interested third parties could occur when therapists discussed observations and test scores among themselves or in the multidisciplinary team. In addition, therapists expressed a notion of trust in standardized tools as

objective. They compared, for instance, findings from standardized tests to pathological manifestations visible in blood samples and CT scans. Trust in standardization was also demonstrated when scores from previous hospital stays were compared to the patient's new scores.

Understanding the numbers

The two components presented in our study find a parallel in Polanyi's [41] distinction between tacit and explicit knowledge. Tacit knowledge is subjective and created through direct experience [42]. Tacit knowledge, thus, embraces an array of conceptual and sensory information and images (*we know more than we can tell* (p4) [41]), whereas explicit knowledge is the knowledge we are able to articulate, standardize, codify, and store. In line with Greenhalgh et al. [27], our study brings to the fore the interaction between tacit and explicit knowledge in the use of test information. The guiding role of subjectivity in the therapists' use of "objective" information illustrates how "facts," such as test scores, do not speak for themselves, but instead are interpreted and translated [2,43]. Thus, information is not given or is not *"the outcome of individual minds, operating in a social vacuum"* (p54) [2]; rather it is the result of a continuous collective interactional activity that produces, interprets, and translates it from one setting to another.

At the outset, numbers are considered objective, and in the therapists' accounts, objective data, that is, numerical data, are associated with quality, reliability, and credibility. A similar association between objective data, reliability, and quality is noticeable in the rhetoric surrounding continuous upgrading of health care provision (see, for instance, [5,6,44]). Still, with regard to the expressed credibility of objective data found in our material, we noted ambivalence among participants: Objective data, numerical data, were often depicted as mere black and white and of limited use or value to clinicians – simultaneously, scores were frequently used in communication. This brings us to a main finding regarding the secondary component of information, a finding that concerns what Fujiura and Rutkowski-Kmitta label *"the economy of communication."* The economy of communication on the wards studied here is seemingly sustained in a multifaceted communication practice that, in fact, goes beyond numerical representation. Thus, we argue that to the therapist familiar with the specific standardized test, the score numbers contain information that goes beyond mere numerical representation. Test scores state level of impairment, often in relation to a normative sample and are, as such, encoded [42]. Knowledge of a test's scoring system and its normative sample is necessary in recognizing the level of impairment indicated by the end score [1]. Atkinson [2] describes information or encoded knowledge as embodied in different forms of

representation (test scores, laboratory test results, MR printouts). His perspective underlines not only that tacit knowledge is key to the production of scores, but also that it is key in generating and maintaining the scores as explicit knowledge. Although encoded knowledge does not preserve the tacit skills of the individuals generating it [42], it provides the therapists with a common language, essentially a shared understanding, of scores. This common understanding facilitated communication with colleagues, as well as communication with the districts' needs assessment offices, but it seemed to fail in communication with patients. Patients, as opposed to colleagues, had no understanding of the message in numbers, and therefore had to have them explained. Therefore, in providing test feedback to patients, the primary component of information was used as the main information source. In practice, the therapist would communicate a contextualized image of a decontextualized test to the patients [16,45].

The ambivalence noted among the participants regarding numerical representation was not directed at the scores' inability to provide insight into level of impairment; it was directed at the scores' inability to capture patient's characteristics [3]. Our analysis shows that, in line with research conducted from an interactional perspective, patients' characteristics and the context are relevant in face-to-face standardization. In interactional-oriented research, test administrator characteristics, patient characteristics, wording, and context have been shown to affect test results. This study, however, suggests that only patient characteristics and context are made relevant when test administrators justify their use of test information. The fact that test observations routinely were made known in the form of written caveats illustrates the therapists' wish to contextualize patient performance. In practice, caveats render visible tacit knowledge in standardized outcome measures: the manner in which clinicians' intuitive judgment, reasoning, and expertise are used to supplement, dismiss, or adjust scores [27]. Thus, caveats highlight what the end score could not: the patient's problem – *"we are more concerned with the problem than with the actual end score"* (OT6). This practice also underlines the therapists' pragmatic stance towards testing. A similar approach to test interpretation is found in Dingwall et al. [18]. Caveats were especially important when a mismatch between patients' observed behavior and the end score was noted. Therapists' uses of caveats provide an example of how:

External clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision.
(p71) [44]

The objective contribution of standardized tests proved to be moderated by caveats. Caveats were actively used in seeking agreement between the subjective and objective components of test information. Therefore, therapists challenge the sole use of one of the components.

Limitations and further research

Although the focus of this article has been on professionals' test information use, important issues possibly affecting their everyday use of such information are left unexplored. First, the health professional's work experience is likely to influence how results are interpreted and, also, what test observations are deemed relevant in planning rehabilitation and communicating patient performance. Second, two wards and two professional groups were studied, but we did not explore the potential differences between test information use on the wards or between the two groups of professionals. Taken together, these issues could help provide a fuller picture of standardized testing. In addition, we suggest that the use of caveats should be investigated further. Yet, to fully contrast our findings, we recommend research into health care settings where end scores are delivered by a technician.

Conclusions

We stand a better chance of understanding the complexities of everyday use of test information in this particular setting if we take into account the twin position of the therapist, as the patient's OT or PT and as test administrator. Our findings suggest that, in clinical practice, by way of the clinicians' gaze on how the patient functions, two different components of test information are merged, and that in the overlapping of these components, individual characteristics are made relevant as test performance justifications and as rationales in the overall communication of patient needs. The overlapping of subjective and objective test information should be investigated further to make known the implications the clinical use of test information may have on the provision of health care.

Competing interests

The authors declare no conflict of interest with regard to the authorship and/or publication of this article.

Authors' contributions

AS and AB conceived of the study and KK developed its methodology. KK conducted fieldwork and interviews. KK, ST, AS, and AB contributed to the interpretation of the findings. KK drafted and wrote the manuscript. All authors commented on different versions of the manuscript, and read and approved the final manuscript.

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Appendix I-VI

Forespørsel om deltakelse i forskningsprosjekt***Dilemmaer i sykehusrehabilitering av geriatriske pasienter*****Bakgrunn og hensikt**

Dette er et spørsmål til deg om å delta i en forskningsstudie som foregår på [REDAKERT] for å belyse noen mulige dilemmaer i sykehusrehabilitering av geriatrisk pasienter. Som doktorgradsstipendiat ansatt ved Høgskolen i Oslo ønsker jeg å sette søkelys på hva som skal til for at kravene om forskningsbaserte tiltak, faglig skjønn og brukermedvirkning sammen kan utgjøre en velfungerende rehabiliteringspraksis. Dette gjør jeg ved å undersøke hvilke dilemmaer rehabiliteringspersonell erfarer i sin praksis, undersøke hvordan rehabiliteringspraksis oppleves av eldre pasienter samt å undersøke hvordan eldre pasienter og rehabiliteringspersonell samhandler om rehabiliteringsprosessen på sykehus.

Hensikten med forskningsstudien er å bidra med mer kunnskap om forholdet mellom rehabiliteringspersonell og deres pasienter. Denne kunnskapen vil kunne ha betydning for pasienter ved geriatriske avdelinger og deres behandlere ettersom den kan anvendes til å veilede og tilrettelegge i rehabiliteringsarbeidet.

Hva innebærer studien?

Dersom du velger å delta i studien vil følgende skje:

- Jeg vil observere deg i samhandling med dine pasienter i rehabiliteringssituasjoner som blant annet omfatter trening og planlegging
- Jeg vil ha noen oppklarende samtaler med deg underveis etter observasjonene
- Jeg vil intervju deg. Intervjuet vil vare ca. 1 time og, dersom du tillater det, tas opp på lydbånd

Datainnsamlingen finne sted i perioden februar og ut august 2009.

Mulige fordeler og ulemper

Du vil ikke ha noen spesielle fordeler av studien, men erfaringer fra studien vil senere kunne hjelpe andre i samme situasjon.

Hva skjer med informasjonen om deg?

Informasjonen som registreres om deg skal kun brukes slik som beskrevet i hensikten med studien. Alle opplysningene vil bli behandlet uten navn og fødselsnummer/direkte gjenkennende opplysninger. En kode knytter deg til dine opplysninger og prøver gjennom en navneliste. Det er kun autorisert personell knyttet til prosjektet som har adgang til navnelisten og som kan finne tilbake til deg. Det vil ikke være mulig å identifisere deg i resultatene av studien når disse publiseres. Hvis du sier ja til å delta i studien, har du rett til å få innsyn i hvilke opplysninger som er registrert om deg. Du har videre rett til å få korrigert eventuelle feil i de opplysningene vi har registrert. Dersom du trekker deg fra studien, kan du kreve å få slettet innsamlede opplysninger. Navnelisten og opptaket blir senest slettet i 2013.

Frivillig deltakelse

Det er frivillig å delta i studien. Dersom du ikke ønsker å delta, trenger du ikke å oppgi noen grunn, og det får ingen konsekvenser for ditt forhold til sykehuset. Dersom du ønsker å delta, undertegner du samtykkeerklæringen på denne siden. Om du nå sier ja til å delta, kan du senere trekke tilbake ditt samtykke uten at det har noen betydning for ditt forhold til sykehuset. Dersom du senere ønsker å trekke deg, eller har spørsmål om studien kan du kontakte: **Kariann Krohne på telefon [REDAKERT]**

Samtykkeerklæring: Jeg er villig til å delta i studien

Jeg bekrefter å ha gitt informasjon om studien:

(Signert av prosjektdeltaker, dato)-----
(Signert, rolle i studien, dato)

Forespørsel om deltakelse i forskningsprosjekt

Dilemmaer i sykehusrehabilitering av geriatrike pasienter

Bakgrunn og hensikt

Dette er et spørsmål til deg om å delta i en forskningsstudie som foregår på [redacted] for å belyse noen mulige dilemmaer i sykehusrehabilitering av geriatrikiske pasienter. Som doktorgradsstipendiat ved Høgskolen i Oslo ønsker jeg å sette søkelys på hva som skal til for at kravene om forskningsbaserte tiltak, faglig skjønn og brukermedvirkning til sammen kan utgjøre en velfungerende rehabiliteringspraksis. Dette gjør jeg ved å undersøke hvilke dilemmaer rehabiliteringspersonell erfarer i sin praksis, undersøke hvordan rehabiliteringspraksis oppleves av eldre pasienter samt å undersøke hvordan eldre pasienter og rehabiliteringspersonell samhandler om rehabiliteringsprosessen på sykehus.

Hensikten med forskningsstudien er å bidra med mer kunnskap om forholdet mellom rehabiliteringspersonell og deres pasienter. Denne kunnskapen vil kunne ha betydning for pasienter ved geriatrike avdelinger og deres behandlere ettersom den kan anvendes til å veilede og tilrettelegge rehabiliteringspraksis.

Hva innebærer studien?

Dersom du velger å delta i studien vil følgende skje:

- Jeg vil observere deg i samhandling med dine behandlere i rehabiliteringssituasjoner som blant annet omfatter trening og planlegging
- Jeg vil ha noen oppklarende samtaler med deg underveis etter observasjonene
- Jeg vil intervju deg. Intervjuet vil vare ca. 1 time og, dersom du tillater det, tas opp på lydbånd

Datainnsamlingen finne sted i perioden februar og ut august 2009.

Mulige fordeler og ulemper

Du vil ikke ha noen spesielle fordeler av studien, men erfaringer fra studien vil senere kunne hjelpe andre i samme situasjon.

Hva skjer med informasjonen om deg?

Informasjonen som registreres om deg skal kun brukes slik som beskrevet i hensikten med studien. Alle opplysningene vil bli behandlet uten navn og fødselsnummer/direkte gjenkjennende opplysninger. En kode knytter deg til dine opplysninger og prøver gjennom en navneliste. Det er kun autorisert personell knyttet til prosjektet som har adgang til navnelisten og som kan finne tilbake til deg. Det vil ikke være mulig å identifisere deg i resultatene av studien når disse publiseres. Hvis du sier ja til å delta i studien, har du rett til å få innsyn i hvilke opplysninger som er registrert om deg. Du har videre rett til å få korrigert eventuelle feil i de opplysningene vi har registrert. Dersom du trekker deg fra studien, kan du kreve å få slettet innsamlede opplysninger. Navnelisten og opptaket blir senest slettet i 2013.

Frivillig deltakelse

Det er frivillig å delta i studien. Dersom du ikke ønsker å delta, trenger du ikke å oppgi noen grunn, og det får ingen konsekvenser for den videre behandlingen du får ved sykehuset. Dersom du ønsker å delta, undertegner du samtykkeerklæringen på denne siden. Om du nå sier ja til å delta, kan du senere trekke tilbake ditt samtykke uten at det påvirker din øvrige behandling på sykehuset. Dersom du senere ønsker å trekke deg, eller har spørsmål til studien kan du kontakte:

Kariann Krohne på telefon [redacted]

Samtykkeerklæring: Jeg er villig til å delta i studien

Jeg bekrefter å ha gitt informasjon om studien:

(Signert av prosjektdeltaker, dato)

(Signert, rolle i studien, dato)

Forskningsprosjekt på [REDACTED]

Det vil i perioden fra februar til og med august 2009 være en forsker tilstede på [REDACTED].

Kariann Krohne er doktorgradsstipendiat ansatt ved Høgskolen i Oslo og hun vil være tilstede på avdelingen på avtalte dag- og aftenvakter for å observere rehabiliteringspraksis.

Hensikten med denne forskningsstudien er å bidra til mer kunnskap om forholdet mellom ansatte og deres pasienter. Denne kunnskapen vil kunne ha betydning for pasienter ved geriatrike avdelinger og deres behandlere ettersom den kan anvendes til å veilede og tilrettelegge rehabiliteringspraksis.

Som pasient ved avdelingen har du rett til å unngå å være del av sammenhenger hvor forskeren er tilstede som observatør. Dersom du ønsker å unngå observasjon så gi beskjed til forskeren eller en ansatt. Da vil forskeren forlate rommet. Dette vil ikke få noen konsekvenser for ditt forhold til sykehuset.

De som sier ja til delta i studien vil bli bedt om å skrive under på en samtykkeerklæring. Forskeren vil observere, ta anonymiserte notater, samtale med og intervju disse og deres behandlere.

Har du noen spørsmål kan du henvende deg til Kariann mens hun er på avdelingen eller på **telefon** [REDACTED]

Informasjonsskriv til oppslag på avdelingene

Forskningsprosjekt på [REDACTED]

Det vil i perioden februar til september 2009 være en forsker på avdelingen. Kariann Krohne er doktorgradsstipendiat ved Høgskolen i Oslo og hun vil være tilstede på avdelingen på dag- og aftenvakter for å observere rehabiliteringspraksis.

Hensikten med denne forskningsstudien er å bidra med mer kunnskap om forholdet mellom rehabiliteringspersonell og deres pasienter. Denne kunnskapen vil kunne ha betydning for pasienter ved geriatiske avdelinger og deres behandlere ettersom den kan anvendes til å veilede og tilrettelegge rehabiliteringspraksis.

Hun vil observere, og samtale med, behandlere og pasienter som samtykker i dette. Noen vil bli forespurt om å bli intervjuet. Hun vil ta anonymiserte notater underveis og du kan når som helst få lese det hun skriver om deg.

Har du noen spørsmål kan du henvende deg til Kariann mens hun er på avdelingen eller på **telefon** [REDACTED]

Intervjuguide for behandlere

Dato:

Sted:

Kjønn:

Alder:

Profesjon:

Hvor lenge her ved denne avdeling:

Hvor lenge har du arbeidet med eldre?

Tidlig rehabilitering av eldre på sykehus

Fortell om dine erfaringer med å arbeide med eldre. Gleder og utfordringer?

Det er en debatt rundt rehabiliteringsbegrepet på avdelingen - hva tenker du om rehabilitering av eldre på sykehus?

Tverrfaglig samarbeid i geriatri

Fortell om dine erfaringer med det tverrfaglige teamet på sengeposten?

Samarbeid/ Profesjonshierarki/ Konflikter?

Kommunikasjon mellom pasient og behandler

Fortell litt om hvordan du kommuniserer best med dine eldre pasienter?

Pasienter med kognitiv svikt/ hukommelsesproblemer?

Mange pasienter synes slitne. Hvordan motiverer du pasienten til å strekke seg litt lengre?

Hvor går grensen mellom det å motivere og det å øve press på pasienten i form av å styre vedkommende? Situasjoner der du føler at du styrer pasienten (mot sin vilje)? Hva tenker du om det og hvordan diskuteres dette i teamet?

Brukermedvirkning

Brukermedvirkning i akutt geriatrien?

Hvordan tilrettelegger du for brukermedvirkning i ditt møte med pasientene? Kartlegging og diskusjon av mål?

Testsituasjonen

Fortell om dine erfaringer med testene som anvendes. Dine erfaringer som tester?

Hvilken nytteverdi anser du at testene har? For deg som behandler/ for pasienten?

Testing i forhold til ditt faglige skjønn og i forhold til brukermedvirkning?

Hvordan oppfatter pasientene testingen?

Pasienter som ikke ønsker å delta – hvordan håndteres det?

Hvordan introduserer du testene /gir du pasientene tilbakemelding på testresultatene?

Hvordan følges testresultatene opp i praksis?

Avslutningsvis

Hvordan har det vært å ha meg med på jobben?

Er det noe vi ikke har snakket om som du har lyst til å tilføye?

Intervjuguide for pasienter

Dato: Sted: Dager innlagt på avdelingen:
Kjønn: Fødselsår: Tidligere arbeid:

Opplevelse av innleggelsen

Fortell litt om hvorfor du er her.
Hvordan du opplever å være pasient her ved avdelingen?

Terapeut – pasient relasjonen

Hvordan har samarbeidet med fysioterapeutene og ergoterapeutene vært?
Hva har du gjort sammen med dem?

Fortell meg litt om treningen/rehabilitering din her – hva slags trening og hvorfor?

Kan du gi meg noen eksempler på rehabiliteringsrelaterte episoder herfra som du opplevde spesielt gode eller spesielt dårlige?

Hvis du tenker på den rehabiliteringen som du er igjennom her - hva er ditt personlige mål?

«Å bli hørt/ bli tatt på alvor» – hva betyr det for deg nå når du er innlagt på sykehus?

Testing

Husker du hva slags tester du har tatt med fysioterapeut og ergoterapeut mens du har vært her?

Hvordan synes du disse testene gikk? Gjennomføringsmessig?

Husker du hva behandler sa til deg om resultatet?
Ergoterapeuten sier det kan være vanskelig å fortelle om resultatene fra de kognitive testene – hva tenker du om det?

Hva tenkte du om det resultatet som ble kommunisert deg?
Har testen noen konsekvenser for deg for deg?
Hva brukes disse testene til tror du?

