Implementation of a New Working Method in Psychiatric Care

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UNIVERSITY OF GOTHENBURG
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To Sophie and Emil
ABSTRACT

Background: The implementation of evidence-based methods in hospital settings is challenging and multifaceted. There are several different factors that may affect implementation processes, of which the organisational culture may be one. It is well known that conservative organisational culture can hinder implementations; accordingly, a mix of different organisational cultures is preferable.

Aim: The aim of this thesis was to follow the implementation process of an ICF-based assessment tool regarding cultural differences associated with the implementation in a psychiatric clinic. As part of the project, an assessment tool based on the International classification of functioning disability and health (ICF) was developed and implemented.

Method: In Study I, three Swedish expert groups participated and analysis of inter-rater reliability was conducted through simulated patient cases. In Study II, data were collected through focus group interviews pre- and post-implementation of the ICF-based assessment tool; thereafter, data were analysed using directed content analysis guided by Normalization Process Theory (NPT). Data from 109 nursing staff who completed the organisational values questionnaire (OVQ) and resistance to change (RTC) were investigated, and the association between the OVQ and RTC was examined with regression analysis (Study III). Patients n=50 representing the intervention hospital and n=64 representing the control hospital answered the Empowerment scale (ES) and Quality in psychiatric care (QPC-IP) (n=45 from intervention hospital and n=64 from control hospital). Staff n=37 at the control hospital answered the OVQ which was presented as descriptive data (Study IV).

Results: Inter-rater reliability of the ICF-based assessment tool (DLDA) displayed acceptable kappa values (Study I). The DLDA tool showed the potential for empowering patients. Furthermore, it was considered useful for dialogues, reflection and for identifying patients’ strengths. Nonetheless, it was difficult to implement it in practice due to contributing factors such as time pressure, heavy workload, stress and lack of routine in using the tool (Study II). The intervention hospital was characterised by an organisational culture of trust, belongingness and flexibility, i.e. a human relation culture. One ward (I.W.3), however, was not dominated by a human relation culture. This ward had an almost equal mix of different cultures (human relation, open system, internal processes and rational goal) (Study III). The results of Study IV were non-significant; however, it indicated that intervention ward 3 proved to be the most prominent ward regarding patient participation and empowerment among the intervention group. The results suggest hospital wards with equal mix of different cultures is more successful than cultural polarisation.

Conclusion: Only one of five wards succeeded in implementing the DLDA successfully (ward 5). Ward number three was the most successful of the inpatient intervention wards. The intent of the DLDA method was considered to be good and its use in a psychiatric nursing context can provide structured support in order to improve the dialogue with the patient, but it was not used in practice in all the studied wards. The organisational culture of the intervention hospital was dominated by human relation properties, however with one exception, ward number three. The results tentatively show that organisational culture may affect outcomes of implementation processes. Consequently, it appears that an equal mix of different cultures are more auspicious than cultural polarisations. The results seems to confirm previous research, where one ward with a balanced mix of different cultures succeeded best to implement DLDA, of the wards representing psychiatric inpatient care. Ward number three did also show the best results in terms of empowerment and patient participation of the intervention wards. Further research aims to continue developing and conducting psychometric testing of the DLDA tool. The DLDA’s impact on patient assessed empowerment and patient participation requires studies on larger populations than the current study.

Keywords: Implementation, Organisational culture, Sweden, ICF, Psychiatric nursing care

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<td>DLDA</td>
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<td>ICF</td>
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<td>Resistance to change</td>
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INTRODUCTION

This thesis concerns the implementation process of a new working method in a psychiatric clinic in Sweden. The study follows the development of a new assessment tool, to the actual implementation process and factors that potentially could affect this process as well as the outcomes, from a staff and patient perspective.

It is well known that conservative organisational culture can either promote change processes or contribute to resistance to change, which hinders the implementation of new organisational models (e.g. Berlin & Carlström, 2010; Little et al., 2001; Stewart et al., 2000; Stewart, 2001). One reason could be professions with certain established patterns of behaviour that make it difficult to implement something new (Berlin & Carlström, 2013). Cutchifíe and Basset (1997) assert that it is difficult to implement changes such as research-based evidence into clinical nursing practice and it is especially difficult to implement changes at ward level. The authors believe that it is easier to change small groups of staff and that such groups can make a difference at the wards (Cutchifíe & Basset, 1997). It is not enough just to have access to high-quality evidence. In order to implement evidence-based model, there is a need for research positive culture within the units as well as motivated nurses (Closs, Baum, Bryar, Griffiths & Knights, 2000). A literature review by Squires, Sullivan, Eccles, Worswik and Grinshaw (2014) reveals that there is no evidence to suggest that larger and costly interventions are more effective than smaller size interventions.

Groups of staff in healthcare have various levels of readiness for change. In all groups, there will be individuals who are ready and excited before a change process, as well as those who feel otherwise (e.g. Rogers, 1962; van Achterberg, Schoonhoven & Grol, 2008). Any attempt to induce change can be met with resistance. In Kirchners, Cody, Thrush, Sullivan and Geene Rapp’s (2004) study, a new appealing working model was implemented in two mental health clinics; however, only one clinic succeeded in integrating the model. Reasons for this result could be attributed to: attitudes of staff, the context, the culture as well as the leadership (Kirchner et al., 2004). Additionally, organisational barriers such as heavy workload, lack of resources, weak support from management and staff members can induce resistance to change and be important factors in such situations (Williams, Perillo, Brown, 2015). It is a challenge in organisations and teams to be coherent and support readiness for change (Robbins & Finley, 1997).

Although several studies focus on the importance of implementing evidence-based working models into nursing practice (Closs et al., 2000; Cutchifíe & Bassett, 1997; Funk, Tornquist & Champagne, 1995; Newman, Papadopoulos & Sisworth, 1998; Polit & Tantano Beck, 2008), the overall aim of this thesis was to follow the implementation process of an ICF-based assessment tool regarding cultural differences associated with its implementation in a psychiatric clinic. As part of the project, an assessment tool based on the International classification of Functioning, Disability and Health (ICF) (WHO, 2001a) was developed and implemented.
BACKGROUND

Organisational culture

The concept of organisational culture, usually characterises the lifestyle of an organisation i.e. something that is common to the members such as norms, assumptions, values and knowledge (Hatch, 2002). The way in which things are done is influenced by the organisational culture (Verbeke, Volgering & Hessels, 1998). All organisations are partly formed by cultural processes created by a variety of actors related to the specific context. However, the most obvious source of external influence on the organisational culture can be found inside the organisation, namely, the staff (Hatch, 2002). People come into contact with organisational cultures when they enter an organisation or workplace. Founders and key leaders often have a dominant impact on the culture of an organisation, leading to common practices (Hofstede & Hofstede, 2005; Bate, 1994). Before the staff becomes members, they are influenced by several cultural institutions, for example, community, family, nation and education. Together, these institutions form a person’s identity, attitudes and behaviour, which they bring along when they enter an organisation (Hatch, 2002). The term organisational culture has no standard definition, but most authors in the field would state that organisational culture is historically determined which reflects the history of the organisation (Hofstede & Hofstede, 2005). One definition says that culture is the glue that makes up a common identity between different individuals (Smircich & Morgan, 1982; Smircich, 1983; Wilkins & Ouchi, 1983). Culture is regarded as socially constructed which means that the organisational culture is created and maintained by the group of people that represents the organisation (Hofstede & Hofstede, 2005).

This thesis is about identifying different organisational settings and examining its impact on a change process i.e. the implementation of a new working model in psychiatric nursing care.

Change processes

A source of change can appear when stagnation contributes to such severe frustration over the state of affairs that employees become receptive to new alternatives (c.f. Feldman & Pentland, 2003). When new and fresh alternatives appear promising, conflicts can arise with regard to the choice between continuing as before and implementing new alternatives. This contributes to fragmentation (Jackobs, 2005), and the new alternative will not be successfully implemented unless the opposition has weakened (Siverbo, 2004). When that happens new models are spread from person to person and become an accepted part of the organisational behaviour (Hingings & Malhotra, 2008). Oreg (2006) found that context and personality influence change processes as well as resistance to change. Elwing (2005) states that communicating the change to employees is a vital and important strategy for change processes. Communication within organisational cultures also has a positive effect on readiness for change (Elwing, 2005). If a change agent is let go too early in the change process, the group will revert to old habits and behaviours (Robbins & Finley, 1997). In order to create an open minded culture within an organisation, the organisation must create a culture of
‘learning through research’ (Walshe & Rundall, 2001, p.449). This will probably succeed in cultures of innovation, experimentation, data collection and analysis. In those organisations, one is most likely to find managers who take evidence-based methods into account before any decisions on important matters concerning the organisation are made (Walshe & Rundall, 2001). Artefacts can be seen as examples of the difficulty in implementing changes, as artefacts that are deeply rooted in the organisation culture may contribute to difficulties in change processes. In a study by Berlin and Carlström (2010), some typical artefacts in a psychiatric team were examined. They identified artefacts such as: yellow lines on the floor, a well hidden belt bed, alarms and covered name badges worn by staff. These artefacts were reminders of an earlier questioned mental healthcare the staff tried to hide. Also, these artefacts created an unwanted dividing line between staff and patients. The artefacts of the psychiatric team were compared to similar artefacts in a trauma team; however, these artefacts had completely different values. Where the artefacts of the trauma team were considered to signal a unified, forward looking culture, those in the psychiatric team were considered to display a conservative and contradictory culture (Berlin & Carlström, 2010).

**Implementation and evidence-based methods**

Evidence-based methods or evidence-based practice are common terms within nursing. Van Achterberg et al. (2008) expressed that there is a need for more research within the science of nursing implementation, since implementation in nursing practice has proven to be difficult. De Laat, Schoonhoven, Pickkers, Verbeek and Van Achterberg (2006) studied the effects of a new policy on the efficiency of pressure ulcer care, where the frequency of hospital-acquired pressure ulcer had decreased after 11 months. The implementation consisted of the introduction of new kind of mattresses and new hospital guidelines for pressure ulcer care. The authors found that implementing efficient tools such as adequate mattresses and guidelines for prevention and treatment could reduce the number of pressure ulcer patients. Introduction of the new guidelines consisted of education and training of the nurses but despite this, the researchers found no significant change in care behaviour (De Laat et al., 2006).

Another study by Pittet et al. (2000) investigated the outcome of a hand-hygiene campaign at hospitals in Geneva from 1994 to 1997. The study showed increasing compliance during the time of the study, but hand washing with water and soap remained stable and the use of hand disinfection increased. It was the nurses and assistant nurses’ use of hand disinfection that increased the most while doctors’ frequency of using hand disinfection was still poor. Although the study showed an increasing frequency of using hand disinfection among nurses and assistant nurses, there was still a low rate of compliance overall, despite extensive research and suggestions of the importance of hand hygiene. Van Achterberg et al. (2008) point out several general factors which may be important for resistance to change, or opposite to a successful change in nursing, such as: organisational characteristics, social influence, knowledge, attitudes, cognitions, routines and resources. Janson, Pilhammar and Forsberg (2011) found out that important factors for successful implementation of individual care plans within hospital nursing care were: an encouraging leadership as well as skilled internal facilitators.
According to Rask and Levander (2000), there are several types of interventions described in the literature on psychiatric care, but these were mostly focused on patients’ behaviours and symptoms. The authors investigated the most common interventions used by registered nurses and licensed mental health nurses at forensic psychiatric wards in Sweden. They discovered that the most frequent interventions were ‘social skills training’, ‘social interaction’ and regular ‘communication’. The authors also found that there was a gap between theoretical models and actual practice. In a study by Morrison (2003), the author evaluated four programmes that were often used in psychiatric nursing care for management of aggression. None of these four programmes were however supported by any nursing research. This was in accordance with criticisms of interventions as often suffering from lack of theory and research-based knowledge (Morrison, 2003).

There are several definitions for the term implementation, such as the one by Fixen, Naoom, Blase, Friedman and Wallace (2005, p. 5) who define the concept as ‘a specified set of activities designed to put into practice an activity or program of known dimension’, while Greenhalgh, Robert, MacFarlane, Bate and Kyriakidou. (2004, p.582) define implementation as ‘active and planned efforts to mainstream an innovation within an organization’. In summary, the different definitions of the concept of implementation are essentially about going from idea to practice, where the ‘idea’ often is represented by research results (Severinsson, 2012). However this thesis is based on Eccles et al.’s (2009) definition, which states that implementation research is ‘the scientific study of methods to promote systematic uptake of clinical findings and other evidence-based practices into routine practice, and hence to improve the quality of healthcare. It includes the study of influences on healthcare professional and organizational behavior’.

Implementation and evidence-based methods are closely connected (Nilsen & Roback, 2010). As there are several definitions on implementation, there are also several definitions of evidence-based methods, depending on different professions in healthcare (e.g. Johansson & Östgren, 2010; Drake et al., 2001). For example, in medicine, the term evidence-based medicine is used. One of the most common descriptions of evidence-based medicine is from Cochrane. Cochrane was an epidemiologist and physician who argued that many of the methods and treatments used in healthcare have no proven efficacy. Cochrane recommended instead that medical methods as well as caring methods and treatments should be based on results from high quality scientific studies (Johansson & Östgren, 2010). Drake et al. (2001) define evidence-based practice in mental healthcare as research-based interventions that benefit patients. The implementation of evidence-based practice in the setting of mental healthcare that is within the scope of this study is difficult and multifaceted (c.f. Torrey et al., 2001).

Organising Swedish psychiatric nursing care

A public report from 2010 (The Swedish Association of Local Authorities and Regions, 2010) revealed that psychiatric healthcare in Sweden was mainly staffed by nursing staff, comprised of assistant and registered nurses (RN). The number of registered nurses and psychiatric nurses varies widely in Sweden. The report revealed that there were physicians serving on all departments. There was also staff who worked...
across departmental boundaries such as, occupational therapists, counsellors, psychologists, physical therapists and therapy assistants. Since the 1800s, the medical perspective has dominated the psychiatric care (Nyström, 2003), and the foundation in all psychiatric treatment in Sweden is medication (The Swedish Association of Local Authorities and Regions, 2010). Historically, the diagnostic perspective has dominated the assessment processes. The diagnosis is still regarded as superior and controls the activities relating to the patients (Glenister, 1994). Nursing care is also a part of the psychiatric care, but the content and standard of psychiatric nursing care varies in Sweden (The Swedish Association of Local Authorities and Regions, 2010). Since the 1970s, the psychiatric nursing care in Sweden has mostly been organised in the form of primary nursing (Nyström, 2003). Primary nursing is described as each patient being assigned to one or two nurses who take responsibility for the nursing care and plan the care of the patient, a care based on the patient’s needs (Melchior et al., 1995; Andersson Höglund & Hedman Ahlström, 2006). In addition, the nurse is also jointly responsible for the administration of admission and discharge, rehabilitation and transferring the patient to another treatment. The RN is also expected to be responsible for teaching and supervising other staff members caring for the patient. Moreover, the RN has a responsibility for the ward with regard to acceptable standards of comfort, hygiene, security and independence for the patients (Lokensgard, 1997).

According to Koivisto, Janhonen and Väisänen (2004), psychiatric nursing care must focus more on patient experience and less on diagnosis and disease in order to re-empower psychiatric inpatients to cope with daily life. A Swedish study by Furåker (2009) revealed that on a typical day nurses in somatic and psychiatric wards spend 38% of their time with patients and the rest of their time on other activities such as administration, documentation and assisting other professionals such as doctor’s rounds. Nurses in psychiatric wards work in teams with assistant nurses, where they often delegate tasks to the assistant nurses when registered nurses are in low numbers (Furåker, 2009).

A study of suicidal patients in Norway showed that the time patients and nurses spend talking to each other is limited. The nurses are often busy with practical tasks, and patients are often left on their own. On those occasions when patients felt isolated and alone at the ward, the feelings of hopelessness and thoughts of suicide returned. Patients expressed a need that the nurses would give them hope, which was dependent on whether the nurses had time to listen to patients. Patients also felt that the discussions with nurses only focused on the diagnosis (Talseth, Lindseth, Jacobsson & Talseth, 1999). In a study among patients who self-harm, it was found that they wanted to be seen as a whole person by the psychiatric staff, not just a person with a diagnosis (Lindgren, Wilstrand, Gilje & Olofsson, 2004).

A new working method based on the ICF

This research project is about the implementation process of a new working method in a psychiatric clinic in Sweden. An assessment tool based on the ICFs component of activity and participation was implemented, DLDA (Daily Life Dialogue Assessment in psychiatric care) (Johansson, Åström, Kauffeldt & Carlström, 2013; WHO, 2001a). ICF was introduced in 2001 by the World Health Organization (WHO, 2001a). The
ICF replaced the previous handicap classification, ICIDH from 1980. The 1980 classification focused on concepts like disability, handicap and activity limitations. ICF, in contrast, is based on positive terms like functioning, activity, structure and participation. ICF can be applied to all individuals, not just those with disabilities. The ICF complements ICD-10, taxonomy for diagnosis. A Swedish version of ICF was developed in 2003 (Socialstyrelsen, 2003). At the World Health Assembly in May 2001, ICF was officially recognised by all WHO member states as an international standard for measuring and describing health and disability (http://www.who.int/classifications/icf/icf_more/en). There are conditions for ICF to create a standardised language and thereby establish a framework for different professionals to describe human functioning and disabilities. ICF can be used as an assessment reference as well as a statistical tool that compares data between different parts of the healthcare sector, even between countries (Socialstyrelsen, 2003). ICF is increasingly used as a common frame of reference by staff within the healthcare sector (Rauch, Krichberger, Boldt, Cieza & Stucki, 2009).

Until today, ICF was frequently used in the field of rehabilitation and occupational therapy (Rauch, Cieza & Stucki, 2008) and ICF (WHO, 2001a) has rendered evidence-based research during the last decade. However, Escorpizo, Ekholm, Gmünder and Cieza (2010) emphasise that the implementation of ICF in clinical practice is slow. Few researchers have focused on implementation of ICF in clinical practice (Cerniauskaite et al., 2011). Cerniauskaite et al. (2011) found that most published papers from 2001 to 2009 concerning ICF were conceptual papers, that is, papers concerning development of ICF and related instruments as well as papers concentrating on the description of different patient disabilities. For example, Reed et al. (2009) argue that in order to implement and use ICF in clinical practice, it requires engagement and training of staff to enable a change in the prevailing culture. Björck-Åkesson et al. (2010) conclude that implementing ICF-CY requires time.

The ICF based tool, DLDA developed in this thesis, focuses on the ICF component of activity and participation. Activity and Participation is divided into nine domains covering various areas of life (WHO, 2001a). WHO and ICF define participation as involvement in a life situation, i.e. what an individual does together with other people and how the individual perceives it and how involved he or she is (Pless & Granlund, 2011). DLDA aims to assess patients’ functioning in terms of activity and participation (c.f. WHO, 2001a) and to accomplish a structured dialogue between the patient and nurse in the care process, thus, increasing patient participation and empowerment.

**Patient participation**

In this thesis, the term participation means both a subjective experience of participating as well as the ability to influence decision-making in the care process (c.f. Cahill, 1996; Glenister, 1994; Eldh, Ekman & Ehnfors, 2010; Rothman, 2001) by being a prerequisite to the nursing process (Andersson Höglund & Hedman Ahlström, 2006). However, the ICF-activity and participation based assessment tool, DLDA developed in this thesis, aims to have patients participate in assessments and as in Eldh et al.’s (2010) study, share knowledge with professionals that potentially can lead to participation in clinical decision-making (Rothman, 2001). The ICF- activity and participation
based tool developed in this research project is an assessment tool, and assessment is the first step of the nursing process and the basis for nursing diagnosis, planning, implementing and evaluating nursing care (Ehnfors, Ehrenberg & Thorell-Ekstrand, 2000). The nursing process is based on the idea that nurses work to create an environment around the patient, consisting of a basis for growth and development (Hummelvoll, 1995). A fundamental prerequisite for the nursing process is correct assessments. To accomplish this, the nurse has to gather information about the patient in order to assess correctly. Thereafter, the nurse, preferably together with the patient, plans, implements and evaluates the nursing care (Andersson Höglund & Hedman Ahlström, 2006). A study by Coombs, Curtis and Crookes (2011) confirms that assessments are central to mental health nursing. They also found that assessments may have different meanings to different nurses. They concluded that assessments in psychiatric nursing care should be systematic and comprehensive.

The concept of patient participation is a widely used term in healthcare (Williams, Freedman & Deci, 1998; Sainio, Lauri & Eriksson, 2001). Participation is defined as staff involving patients in important decisions and taking into account their opinions (Myndigheten för vårdanalys, 2014). Despite this, a Swedish report reveals that patients, primarily in inpatient psychiatric care, experience lack of participation in decisions concerning their own healthcare. Patients also feel that they are not listened to and that their personal experiences and knowledge are not taken advantage of (Myndigheten för vårdanalys, 2014; SBU 2012). The Swedish Patient Acts (SFS 2014:821; SFS 2010:659) as well as National targets in mental health services in Sweden (SOU, 2006) emphasise the value of patients being involved in the care process. The meaning of the term or concept of patient participation has largely been based on the patient´s right to influence his or her care as well as taking part in decision-making (Rothman, 2001). Tambuyzer and Van Audenhove (2011) found that participation in decision-making is just one cornerstone of the concept of patient involvement where participation in decision-making implies policy decisions as well as decisions concerning patients’ personal care. Tambuyzer and Van Audenhove (2011) also state that empowerment may be a result of involvement. Also, Linhorst, Hamilton, Young and Eckert (2002) argue that involvement in the care process could be seen as a way of empowering patients, even if severe mental illness may limit the empowerment.

Empowerment

The concept of empowerment began to flourish in political movements and self-help circles in the late 1960s and early 1970s (Ryles, 1999). Later on, the concept played an important role in healthcare. However, the concept has various meanings depending on the profession. Clinical sociologists and social workers describe empowerment as having a wide comprehension of society (political model). Within nursing (psychological model), empowerment is the ability to take control (Hokanson Hawks, 1992; Rissel, 1994; Skelton, 1994). In this thesis, the concept of empowerment is based on the psychological model. According to Ryles (1999), the psychological model, inspired by Carl Rogers (1979), is closely connected to nursing which emphasises personal growth, self-awareness and the idea that an empowered individual is able to deal with and handle difficult interpersonal relationships.
Two different views of the concept deal with the possibility to empower: one view holds that organisations, professionals and individuals can empower each other as long as they first empower themselves (Hokanson Hawks, 1992; Caffery and Caffery 1994; Pyne, 1994; Kubsch, 1996). The other view holds that it is impossible for one person to empower due to the power relations that exist between the user and the professional. In this latter view, power relations are regarded as something that undermine the empowerment process (Skelton, 1994; Sines, 1994; Gilbert, 1995; Gutierrez, GlenMaye & DeLois, 1995).

There are several concept analyses regarding empowerment within a nursing context (Rodwell, 1996; Gibson, 1991; Hokansson Hawks, 1992; Ryles, 1999). Rodwell (1996) reveals that the defining attributes of empowerment in a nursing context are: helping process, mutual decision-making, freedom to make choices as well as a partnership, which emphasises self and others. For empowerment to exist in healthcare settings, it requires an organisation that supports the attributes of empowerment. Rodwell (1996) argues that it is important to develop a philosophy of empowerment within the nursing professions and thereby be able to empower the clients (Rodwell, 1996; Gibson, 1991). Gibson (1991, p.359) defines empowerment in a nursing context as, ‘empowerment is a process of helping people to assert control over the factors which affect their health’. Finfgeld (2004) states that becoming empowered consists of an interpersonal process. The process includes equal and active participation by at least two individuals. Important attributes include sharing power and participatory decision-making which has to be mutually and respectfully supplied by those involved.

The concept of empowerment in relation to mental health nursing was described by Hansson and Björkman (2005), where the authors expressed that the concept of empowerment has evolved due to the de-institutionalisation process, when psychiatric services have become more community-based and the number of institutions has decreased and in some places even closed. The idea of de-institutionalisation is contemporary, more effective psychiatric services and a drive towards normality and integration of individuals suffering from psychiatric diseases with the rest of the society in order to decrease marginalisation and stigma are sought after. However, the outcomes of the de-institutionalisation process have not been successful. People are still marginalised and stigmatised (Hansson & Björkman, 2005). In this study, the concept of empowerment is based on a psychological dimension that includes self-esteem, self-confidence, self-efficacy and social-orientation. These dimensions include factors such as commitment, power and control (e.f. Rappaport, 1981). According to Johnson (2011), empowerment in a healthcare context is defined as a process where patients are informed, engaged and committed. In this study, empowerment is also seen as a tool that is available for use by the caregiver e.g. supporting and strengthening individuals gives them power to adopt and or manage their own difficulties in certain situations.

**Theoretical framework**

One area of competence for registered nurses in Sweden is to implement, participate in and carry out developmental work based on evidence-based knowledge (Socialstyrelsen, 2005). This aims to develop nursing care, which will ultimately benefit
patients in a Swedish healthcare context. According to the Swedish Association of Local Authorities and Regions (2010), there is still widespread need for knowledge development within the Swedish inpatient care. However, it is not just about implementing or not; rather, in order to implement something new, there are several factors in the specific context that must be taken into consideration in order to achieve success. This has also been emphasised by previous research (e.g. Kirchner et al., 2004; Van Achterberg et al., 2008; Williams et al., 2015). Central to this thesis is, therefore, organisational cultures and implementation theories, which form the theoretical framework for this thesis.

The Swedish healthcare system is unique and has long tradition of pride, stable organisations, highly skilled and educated employees at the same time as it is stressed by development, expectations and financial challenges. It can be said to balance between two polar opposites: stability and reliability on the one hand and change and flexibility on the other hand (Carlström, 2013). This polarisation could be compared with the Competing Values Framework by Quinn and Rohrbaugh (1981, 1983), which, together with the NPT, represent the theoretical framework for this thesis. The idea for the theoretical model, Competing Values Framework (Quinn & Rohrbaugh, 1981, 1983), is that organisational culture consists of opposite values (Quinn, 1988), where an effective organisational culture exhibits inconsistent cultures simultaneously (Quinn & Rohrbaugh, 1983). Hatch (2002) argues that the organisational culture affects the work in an organisation, which in turn is influenced by norms, values, assumptions and knowledge of the members. The concept of organisational culture is based on Vygotski’s (1978) definition, which identifies culture as a link or transition between individual and collective behaviour. This refers to the idea that organisational culture is “embodied” in individuals, but shared by the collective (Leontév, 1978; Vygotski, 1978; Valler, 2003; Miettinen & Virkunnen, 2005; Griffin & Morehead, 2007).

Concerning the second part of the theoretical framework in this thesis, two important implementation theories will be presented: Theory of Diffusion of Innovation (DOI) by Rogers (1983, 1995, 2003) and the Promoting Action on Research Implementation in Health Services (PARIHS) by Rycroft and Malone (2004) and Rycroft and Malone et al. (2004). DOI describes how an innovation is spread to an individual or organisation by five stages along a time axis: knowledge, persuasion, decision, implementation and confirmation. First, knowledge, i.e. an awareness and understanding, must exist before the receiver of the innovation can be convinced of the benefits, i.e. persuasion. Thirdly, the receiver has to make a decision to embrace the innovation before putting it into use, i.e. implementation. The final stage is where the receiver uses the innovation in practice or decides not to use it, i.e. confirmation (Rogers, 1983, 1995, 2003). The PARISH framework, by Rycroft and Malone (2004) and Rycroft and Malone et al. (2004), concerns successful implementations of evidence-based practice in healthcare. The theory addresses three key problems: evidence, context and facilitation, which are designed as a continuum from high to low. High evidence means that there is scientific stability, which is suitable for both patients and professional practitioners. High context means a context that is receptive to changes that involve sympathetic cultures, strong leadership and appropriate mechanisms for feedback and monitoring. High facilitation involves both internal and external facilitators who facilitate change and implementation (Rycroft & Malone, 2004; Rycroft & Malone et al., 2004).
The chosen implementation theory for this thesis (Study II) was Normalization Process Theory by May (2006) and May et al. (2007, 2009). The theory is based on sociology and provides a set of tools to understand and explain the social processes of thinking, adopting and organising work when implementing new routines or practices. One of the reasons for development of this theory was the difficulty present when implementing and interacting with new methods and ways of organising care in healthcare settings (May, 2006; May et al., 2007, 2009). The theory consists of three key concepts: implementation, embedding and integration. The key concepts refer to the social processes when something is implemented and incorporated in daily work (or not) as well as reproduced and maintained in the organisation (May, 2006; May et al., 2007, 2009).

The theory states that new practices become routinely embedded as a result of people working individually and collectively to implement them into the organisation. The production and reproduction of a practice requires continuous investment by agents in organisations. In order to understand how new practices become routinely embedded in everyday work, it is necessary to consider what people actually do and how they work. The theory suggests that this is achieved through four mechanisms or components: Coherence (collaboration), Cognitive participation, Collective action and Reflexive Monitoring, and have all four components each. These mechanisms are affected by factors that promote or inhibit the routine embedding or normalisation of a practice in social contexts (May, 2006; May et al., 2007, 2009).

Coherence is about the evident advantages of a new practice and consists of the following components: differentiation, communal specification, individual specification and internalisation. Cognitive participation concerns the engagement and enrolment of groups and individuals and includes the components: initiation, enrolment, legitimisation and activation. Collective action consists of: interactional workability, relational integration, skill-set workability and contextual integration and concerns how the new practice interacts with already existing practices. Reflexive monitoring is about how the new practice is assessed and understood by the participants, including the components: systematisation, communal appraisal, individual appraisal and reconfiguration (May & Finch, 2009).

A successful implementation process can, therefore, be summarised in a stepwise process containing four steps starting with coherence, cognitive participation, collective action and ending with Reflexive Monitoring (May, 2006; May et al., 2007, 2009).
RATIONAL FOR THE STUDY

Evidence-based research is something that is constantly in demand in healthcare (http://www.sbu.se/en/About-SBU/). Previous research has shown difficulties in implementing new practices and working methods in healthcare contexts (Torrey et al., 2001; May, 2006; May et al., 2007, 2009; Berlin, 2010). There is need for further research and knowledge about factors that may influence the outcome of implementations in healthcare.

ICF has generated much research in various fields since its introduction in 2001; however, there is little research that describes the introduction of the ICF in clinical settings (Cerniauskaite et al., 2011). The ICF is of great interest, particularly in various rehabilitation settings (Rauch, Cieza & Stucki, 2008). But ICF could also be useful in assessing situations in psychiatric nursing care (Reed et al., 2009), for example, by contributing new knowledge and new focus area for nursing staff, in the form of functional assessments (Reed et al., 2009). It can be seen as a new way of thinking in psychiatric care. Psychiatric care has historically been diagnostic and medically oriented (Nyström, 2003; The Swedish Association of Local Authorities and Regions, 2010). Evidence-based research like the ICF presupposes a successful implementation process, which is key for health development. There are however several potential factors that affect the outcome of implementations in healthcare, where a possible factor may be the organisational culture.
AIMS

Overall aim
The aim of this thesis was to follow the implementation process of an ICF-based assessment tool regarding cultural differences associated with its implementation in a psychiatric clinic. As part of the project, an assessment tool based on the International Classification of Functioning, Disability and Health (ICF) was developed and implemented.

Specific aims

Study I
The aim was to develop a tool based on the ICF, intended to be used by nurses in psychiatric settings as well as to test psychometric properties, focusing on face validity and inter-rater reliability.

Study II
The aim was to highlight the implementation process concerning a new working method, i.e. a new assessment tool, based on the International Classification of Functioning Disability and Health (ICF), among psychiatric nursing staff in five participating wards at a Swedish county hospital.

Study III
The aim was to increase awareness of different cultural dimensions that have the potential to contribute to the outcome of a change process.

Study IV
The aim was to examine the implementation of a new working method in psychiatric hospital wards, representing different cultural characteristics.
MATERIALS AND METHODS

Context

In 2007, a university and a psychiatric clinic in western Sweden started a collaboration, focusing on the implementation of the World Health Organizations’ (WHO) International Classification of Functioning Disability and Health (ICF) (WHO, 2001a) in clinical practice. This was preceded by the fact that ICF, a few years back had been a permanent feature of the specialist training of psychiatric nursing care at the University.

The experiences obtained from the ICF back in 2007 was that ICF had resulted in improved nursing documentation as well as providing new and essential knowledge about patients. However, the participants considered the original classification of ICF difficult to use selectively, which could mean that the clinic did not continue to work with ICF. As a result, the participants sought a shorter version of ICF, but none of the already existing core sets, checklists or disability assessment schedules (Cieza et al., 2004; WHO, 2001a) were considered useful in the context of psychiatric nursing. Consequently, a non-validated ICF based assessment tool was designed. Since there was widespread interest in implementing the ICF both from the management of the psychiatric clinic and from researchers at the university, the project was intensified in 2011 and a PhD-project in caring science, psychiatric nursing started.

Initially, the idea of the PhD-project was to further develop and implement the ICF-based assessment tool and evaluate its impact in psychiatric nursing care. The assumption was that it is usual to introduce new models in healthcare, but it is not as common to evaluate its effects (e.g. Professor Lars Wallin lecture, January 21, 2015). The project was launched with great enthusiasm. However, after a while the project had to change direction. From focusing on the development and implementation and evaluation of the utility of the ICF-based assessment tool, it shifted to focus on the actual implementation process of the tool.

Soon after the data collection started, it became clear that it would be difficult to collect enough data since the implementation of DLDA seemed to differ between the different wards. This fact brought new questions influencing the focus of the PhD-project.

In the original setting of the PhD-project, the intervention wards were expected to answer questionnaires on two occasions: prior to the implementation as well as a year after its introduction. However, since data collection at the first occasion had to be ended because of lack of data, the procedure had to be adjusted. To distribute the questionnaires twice during the period of approximately a year was considered not feasible. Therefore, a decision was made to just collect data on one occasion: retrospectively and compare this data with a control unit. During this process, a literature review was conducted of implementations and its difficulties. It showed that implementations and interventions in healthcare contexts indeed are difficult and complex,
and that there were many different factors influencing this process, for example, organisational cultures (e.g. Torrey et al., 2001; Van Achterberg et al., 2008; Williams et al., 2015).

**Design**

Both quantitative and qualitative data were collected in order to follow the implementation process of a new working method and to look at cultural variables associated with the implementation. The methods used were predominantly descriptive statistic in nature (Studies I, III and IV). In Study II, a deductive content analysis was used.

Study I was descriptive. The aim was to develop and test the psychometric properties of a tool, based on the ICF, to assess the patient’s functioning in terms of activity and participation in various spheres of life. The tool was constructed to encourage assessment in close collaboration between the patient and the nurse. Study II was descriptive, and data were analysed through deductive content analysis. The aim was to highlight the implementation process of a new working method, i.e. an ICF based tool. The choice of deductive content analysis and Normalization Process Theory, NPT, was due to NPT being a theory that aims to discover how people work and what they actually do when something new is to be implemented. NPT is considered to be a useful conceptual tool and an analytic framework for understanding the implementation, embedding and integration of the DLDA tool in a psychiatric nursing context (c.f. May, 2006; May et al., 2007, 2009).

Another reason for choosing deductive content analysis was due to the large amount of data that were collected, where a theory like NPT helped focus the research question. But also the fact that there already existed a lot of research and theories concerning implementations and implementation processes in healthcare (Hsieh & Shannon, 2005). Hence, a conventional content analysis design was an appropriate choice, if no adequate theory was available. The choice of focus group interviews was because it was important to know first, how each group (inpatient and outpatient) corresponded on functional assessments, and secondly after the implementation, how the key participants in each ward had perceived the process separately.

Study III was descriptive, and quantitative data were collected through two questionnaires (OVQ & RTC) (Reino, Kask & Vadi, 2007 2007; Oreg, 2003) in order to increase awareness of different cultural dimensions, which has the potential to contribute to the outcome of a change process, i.e. the implementation of an ICF based tool. Study IV was also descriptive in nature. Data were collected through questionnaires from patients (ES & QPC-IP) (Hansson & Björkman, 2005; Schröder, Wilde Larsson, Ahlström & Lundqvist, 2010) and staff (OVQ) (Reino et al., 2007) in order to measure patient’s perception of empowerment and participation in psychiatric care in different cultural settings after implementation of an ICF based tool. Hence, a mixed method design of qualitative descriptive content analysis for patients and descriptive design of OVQ questionnaire was an appropriate choice. An overview of each study concerning aims, data collection, participants and data analysis is presented in Table 1.
Table 1. An overview of aims, instruments/or data collection, participants and data analysis.

<table>
<thead>
<tr>
<th>Study, aim</th>
<th>Instruments/data collection</th>
<th>Participants</th>
<th>Data analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>I The aim was to develop a tool based on the ICF intended to be used by nurses in psychiatric settings and to test psychometric properties, focusing on face validity and inter-rater reliability</td>
<td>An un-validated ICF-based assessment tool Simulated patient cases</td>
<td>Expert group I: n=8 people with different professions with experience in instrument development Expert group II: n=22 nurses Expert group III: n=32, individuals with different professions, who had undertaken a course in ICF or people with knowledge and experience about ICF</td>
<td>Descriptive statistics, inter-rater reliability, accuracy</td>
</tr>
<tr>
<td>II The aim was to highlight the implementation process concerning a new working method, i.e. a new assessment tool, based on the ICF, among psychiatric nursing staff on five participating wards at a Swedish county hospital</td>
<td>Descriptive, qualitative data collected through focus group interviews pre and post implementation</td>
<td>n=21 key participants represented by assistant nurses, registered nurses, psychiatric specialist nurses and occupational therapists</td>
<td>Deductive content analysis</td>
</tr>
<tr>
<td>III The aim was to increase awareness of different cultural dimensions that has the potential to contribute to the outcome of a change process</td>
<td>Organizational values questionnaire (OVQ) (Reino et al., 2007) Resistance to change (RTC) (Oreg, 2003)</td>
<td>Assistant and registered nurses n=109</td>
<td>Descriptive statistics, co-variation, bivariate and multiple regressions</td>
</tr>
<tr>
<td>IV The aim was to examine the implementation of a new working method in the psychiatric hospital wards, representing different cultural characteristics</td>
<td>Empowerment scale, making decisions (Hansson &amp; Björkman, 2005) QPC-IP (Schröder et al., 2010) OVQ (Reino et al., 2007)</td>
<td>n=50 patients (intervention wards) n=64 patients (control wards) n=37 nursing staff (control wards) n=57 nursing staff (intervention wards)</td>
<td>Descriptive statistics and co-variation</td>
</tr>
</tbody>
</table>

Instruments

Organisational Values Questionnaire (Studies III & IV)

The concept of organisational culture is based on the theoretical model of the Competing Values Framework (Quinn & Rohrbaugh 1981, 1983). The model is based on different dimensions, including internal, external, flexibility and control. From these
dimensions, organisations can be identified by four different orientations. These approaches are: human relations (HR) which denotes trust, belongingness, cohesion and flexibility; open systems (OS) which is characterised by experiments, benchmarking and the capability to run projects independently; rational goals (RG) which denotes effectiveness and efficiency and its focus on emulative behaviour; and internal processes (IP) which denotes an organisation that strives for routines, hierarchies and stability in order to maintain control (Quinn & Rohrbaugh, 1983) (Table 2). Human relations, open systems, rational goals and internal processes are the cornerstones of the instrument Organisational Values Questionnaire (OVQ) (Reino et al., 2007) used in these studies, which in turn is based on the concepts of the Competing Values Framework (Quinn & Rohrbaugh 1981, 1983). The OVQ (Reino et al., 2007) is developed from the Organizational Culture Assessment instrument (Cameron & Quinn, 1999) considered to be a potential instrument for application to mental health implementation research (Kimberly & Cook, 2008). OVQ questionnaire has been used in different studies, for example, in Estonia and Sweden (e.g. Saame, Reino & Vadi, 2011; Alharbi, Ekman, Olsson, Dudas & Carlström, 2012; Carlström & Ekman, 2012; Carlström & Olsson, 2013). The Swedish OVQ instrument contained 52 items on a 10-point Likert scale ranging from strongly disagree (1) to strongly agree (10) (cf. Reino et al., 2007).

Table 2. OVQ Organisational Values Questionnaires (Reino, 2007)

<table>
<thead>
<tr>
<th>Approaches</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR</td>
<td>Human relations</td>
</tr>
<tr>
<td>OS</td>
<td>Open systems</td>
</tr>
<tr>
<td>RG</td>
<td>Rational goal</td>
</tr>
<tr>
<td>IP</td>
<td>Internal processes</td>
</tr>
</tbody>
</table>

**Resistance to change (RTC) (Study III)**

Study III also consists of an instrument measuring the dispositional resistance to change (RTC) (Oreg, 2003), in order to assess nurses and assistant nurses’ reaction to change from an individual perspective. RTC is based on four dimensions: routine seeking (RS), emotional reaction (ER), short-term focus (STF) and cognitive rigidity (CR). The RS dimension is characterised by the unwillingness to give up old habits. ER reflects change as a stress factor and a collective reluctance to participate in change processes. STF identifies short-term thinking in an organisational setting and identifies a common view of short-term disadvantages, compared to the potential
long-term benefits of change. Whereas CR reflects a form of resentment and rigidity to consider alternative ideas and perspectives within the organisation (Oreg, 2003) (Table 3). The RTC scale has earlier been used in Swedish health care contexts (e.g. Carlström & Ekman, 2012; Carlström & Olsson 2013). The Swedish version of RTC contained 17 items on a 6-point Likert scale ranging from strongly disagree (1) to strongly agree (6).

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS</td>
<td>Routine seeking</td>
</tr>
<tr>
<td>ER</td>
<td>Emotional reaction</td>
</tr>
<tr>
<td>STF</td>
<td>Short-term focus</td>
</tr>
<tr>
<td>CF</td>
<td>Cognitive rigidity</td>
</tr>
</tbody>
</table>

**Table 3. RTC Resistance to change (Oreg, 2003)**

**The non-validated ICF-based assessment tool (Study I)**

The non-validated ICF-based assessment tool was developed from a pilot study (Haugen Ohlsson & Siwerstam, 2011). It was designed in two versions, one for staff and one for patients, containing identical items. The items were selected in order to assess the patient’s ability to participate in various spheres of life and based on the ICF component of ‘activity and participation’ (Socialstyrelsen, 2003; WHO, 2001a). The assessment tool included all nine dimensions of activity and participation (Socialstyrelsen, 2003; WHO, 2001a). The tool consisted of a total of 32 items. The response option was inspired by the ICF qualifier and ranged from 0 to 4 (0=no problem, 1=mild problem, 2=moderate problem, 3=severe problem and 4=complete problem) (Johansson, Äström, Kauffeldt & Carlström, 2013). The non-validated ICF-based assessment tool was psychometrically tested (face validity and inter-rater reliability) and re-named as Daily Life Dialogue Assessment in psychiatric care tool (DLDA)

**Daily Life Dialogue Assessment tool (DLDA) (Studies II & IV)**

The DLDA tool contained 36 questions, and the response option range (0 to 4) was the same as the non-validated ICF-based assessment tool, as the research team considered it important to retain the original response option range based on the ICF. There was
however comments on the qualifiers and their meaning by the participating nurses and allied health professionals in Study I, where they found it somewhat contradictory to use a problem-based qualifier even though the ICF describes health and functioning in positive terms (Johansson et al., 2013; c.f. Socialstyrelsen 2003; WHO, 2001a).

The workflow of DLDA constitutes the idea where the patient and nurse answer the DLDA tool respectively and where the answers serve as a basis for dialogue between them, which is expected to lead to increased patient participation and empowerment and serve as a basis of planning the continued care (Figure 1).

Empowerment Scale, Making Decisions (Study IV)

Empowerment scale (Hansson & Björkman, 2005) is a Swedish version of the scale Making Decisions (Rogers, Chamberlin, Ellison & Crean, 1997). It is a self-reported questionnaire used to measure empowerment among people with mental illnesses. Hansson and Björkman (2005) have investigated the psychometric properties of this Swedish version (Rogers et al., 1997). The psychometric properties of the scale were measured in terms of internal consistency and construct validity, which showed satisfactory results (Hansson & Björkman, 2005). The authors also wanted to investigate the relationship between empowerment and some background characteristics as well as some social and clinical factors for the patients included in their study (Hansson
The sociodemographic factors investigated included: civil status like sex, age, living and working situation and education. The clinical factors were represented by diagnosis and duration of illness. Only a few significant relationships emerged in the results. Hansson and Björkman (2005) found that respondents who had never been married had a lower level of empowerment, compared with respondents who had been married. Respondents with higher education (college or university) had a higher level of empowerment, compared with others. Furthermore, the overall empowerment was higher among respondents who were working, compared with respondents who were not working. In addition, the authors found no other differences in the relationship between empowerment and sociodemographic or clinical factors. The questionnaire consisted of 28 questions. Response options ranged from 1 (Strongly Agree) to 4 (Strongly Disagree).

**Quality in Psychiatric Care-inpatient, QPC-IP (Study IV)**

The QPC-IP, developed and psychometrically tested by Schröder et al. (2010), is a self-report instrument, affecting patients’ perception of the quality of psychiatric care. The instrument has been developed from the perspective of the patient and makes it possible to obtain the aspects of care that are related to higher and lower quality. The instruments can also be used to evaluate patients’ perceptions of the quality of psychiatric care. Psychometric properties in terms of internal consistency and exploratory factor analysis were measured. QPC-IP consists of 30 statements with a 4-point Likert scale, ranging from ‘strongly agree’ to ‘completely disagree’, and in addition there is a box for ‘not applicable’ (Schröder et al., 2010).

**Focus group interviews (Study II)**

As a data collecting strategy, focus group interviews are common when gathering qualitative data in a healthcare context (Sim, 1998; Webb & Kevern, 2001). In this study, the focus groups consisted of semi structured group interviews focusing on a specific topic and were led by a moderator (C.A) who asked opened ended questions (c.f. Carey & Smith, 1994; Kitzinger & Barbour, 1999). Such interviews have been used in many different ways regarding number of participants, ranging from 4–20; number of focus groups, approaches, purpose and topics (McLafferty, 2004). McLafferty (2004) argues that homogenous focus groups seem to interact better than heterogeneous focus groups. In this study, a total of seven focus group interviews were conducted. The number of participants ranged from 2–6. The interviews lasted between 34 and 75 minutes. They were recorded and then transcribed verbatim. The definition of focus group interviews in this research project is based on the one provided by Smithson (2000, p.104), who defines them as ‘a controlled group discussion, on the basis that the group interaction generated through discussion is of prior importance to this methodology’. Furthermore, in this study, data were analysed through directed content analysis according to that proposed by Hsieh and Shannon (2005).

**Content analysis (Study II)**

For several decades, content analysis has been used in several different fields of research, such as communication research or propaganda research during World War
II (Krippendorff, 2013). Content analysis has been divided into two main areas, one area where the content analysis is based on quantitative data, thus, the quantitative approach as well as a qualitative approach where content analysis is based on qualitative data (e.g. Krippendorff, 2013; Graneheim & Lundman, 2004; Hsieh & Shannon, 2005). Hsieh and Shannon (2005) have in turn divided the qualitative content analysis into three different approaches depending on its various properties. All three approaches aim, however, to interpret meaning from the content of a text. The three different approaches, according to Hsieh and Shannon (2005), are conventional content analysis, summative content analysis and directed content analysis (Hsieh & Shannon, 2005).

In this study (II), there is vast amount of prior research regarding implementations that can be related to the present study; therefore, the directed content analysis approach was used. The directed content analysis is an approach where researchers use a theory or theoretical framework, either with the purpose of helping to focus the research question or to validate or further develop the theoretical framework (Hsieh & Shannon, 2005). In this study (II), Normalization Process Theory (NPT) was used (May, 2006; May et al., 2007, 2009) in order to code the data and to analyse the implementation process at the participating wards. According to Carl fjord (2010), theories can be used as a grid in order to select important factors that affect the implementation process.

Participants

Study I, consisted of three expert groups where the inclusion criteria of expert group I were people with different professions that are representative of their profession or professional organisation, with experience in instrument development. The exclusion criteria were people representing a single profession. Expert group I consisted altogether of eight people.

Expert group II consisted of 22 nurses and 22 patients. The inclusion criteria for the nurses were RNs who had undertaken a course in ICF or with experience from ICF. The patients were psychiatric patients that nurses met at their respective workplaces and who could participate and discuss the DLDA tool together with their nurse. The exclusion criteria for expert group II were RNs or assistant nurses working in the current wards who were involved in this PhD project. Patients whose condition did not permit participation were excluded.

Expert group III involved 32 people representing different professions within the healthcare sector who had undertaken a course in ICF or people with knowledge and experience about ICF. Healthcare professionals with no experience or knowledge from ICF were excluded.

Study II, was represented by staff on current inpatient wards (n=3) and outpatient service centres (n=2) who had undertaken a course in the ICF during autumn 2011. Altogether study II was represented by 21 key participants represented by assistant nurses, registered nurses, psychiatric specialist nurses and occupational therapists. The exclusion criteria were nurses who did not participate in the ICF training programme during autumn 2011 or nurses working at the other wards and outpatient clinics at the clinic.
In study III, a total of 109 assistant and registered nurses participated by answering the OVQ and RTC questionnaire. The inclusion criteria for participation were registered and assistant nurses (N = 133) who were serving at the psychiatric clinic for the intervention at the time of the study. Staff who worked across departmental boundaries such as physicians, occupational therapist, counsellors and secretaries were excluded. Seventy-one of the respondents were registered nurses and 38 were assistant nurses. Of those, 70% were women and 30% were men. A total of 52 nurses worked at the outpatient clinics, respectively 57 inpatient nurses. Age ranged from 24–66 years.

Study IV included 50 patients at the intervention wards (I.W.) and 64 patients at the control wards (C.W.). Inclusion criteria for both intervention and control wards were inpatients at the participating wards (I.W. 1–3 & C.W. 1–2) whose condition allowed participation. Exclusion criteria were patients whose condition did not allow participation. The selection of the participating wards (I.W. 1–3 & C.W. 1–2) was made in consultation with the management of the two hospitals. A total of 57 nursing staff (same as in Study III) (for intervention group) participated. In the control group, 37 nurses agreed to participate by answering the OVQ questionnaire. One questionnaire was sent back unanswered and two others had 23 and 9 missing values each; these three questionnaires were excluded from the analysis. The nursing staff ranged in age from 21–66 years old.

**Intervention group (I.W.)**

*Empowerment scale*

Fifty-three empowerment scale questionnaires were returned from intervention group. Three were excluded from the analysis due to missed informed consent. Of the remaining 50 empowerment scale questionnaires, one questionnaire had two missing values. The 50 participants, (n=31 women and n=19 men), ranged in age from 19–72-years-old.

*Quality in Psychiatric Care-inpatient, QPC-IP*

As few as 50 QPC-IP questionnaires were returned. A total of 5 OPC-IPs were excluded due to unsatisfactory completed questionnaires. Of the remaining 45, (QPC-IP), two questionnaires had one missing value, one had two missing values and a fourth had three missing values. The 45 participants, (n=28 women and n=17 men), ranged in age from 19–72-years-old.

**Control group (C.W.)**

*Empowerment scale*

From the control group, 73 empowerment scale questionnaires were returned. Of those, nine were excluded from analysis. Six were excluded due to missed informed consent whereas three were duplicates. Of the remaining, 64 empowerment scale questionnaires lacked missing values. The participants (34 women and 30 men) ranged in age from 18–76-years-old.

*Quality in Psychiatric Care-inpatient, QPC-IP*

A total of 73 questionnaires were answered, out of which nine were excluded from analysis. Six were excluded due to missed informed consent whereas three were du-
plicates. Of the remaining 64 QPC-IPs, two questionnaires had one missing value each, a third had two and the fourth had three and the fifth had five missing values each. The 64 participants were the same participants who answered the empowerment scale.

**Settings**

This PhD project was conducted at two psychiatric clinics at two Swedish hospitals during the period of April 2011 to May 2013. The intervention took place at one of these clinics, and the other clinic served as a control unit. The participants in the different studies were nursing staff such as assistant and registered nurses as well as different expert groups consisting of people with experience in instrument development and/or from ICF, as well as patients in both inpatient and outpatient psychiatric care.

**Data collection and procedure**

**Study I**

The data collection consisted of seven stages (figure 2). Stage 1 to 4 expert group I reviewed the ICF-based tool, and nurses and patients of expert group II tested the tool. Thereafter, a total of four simulated patient cases were constructed and sent to expert group I. All of the patient cases were slightly revised in order to meet the categories of the component of Activity and Participation in the ICF (WHO 2001a, Socialstyrelsen 2003). Expert group I was also asked to do an assessment of the cases according to the “DLDA” tool. The answers were compared and a golden-standard (Streiner & Norman, 2008) was calculated. Another expert group (III) was asked to participate in the study. This expert group III consisted of people who had undertaken a course in ICF during autumn 2011 and spring 2012 or people with knowledge and experience about ICF. Expert group III’s task was to make an assessment of the patient-cases according to the DLDA tool, which then was analysed (steps 6–7, Figure 2).

Each participant of expert group I and III received both an e-mail and a letter explaining the aim of the study. The letter to expert group III contained a self-administered questionnaire. The participants could choose whether or not they wanted to participate in the study. The completed assessments were returned to one of the authors (CJ). One reminder note was sent out after approximately three weeks.

The DLDA tool consists of two versions, one for patients and the other for nursing staff. The psychometric testing of DLDA in study I (Johansson et al., 2013) covers the patient version. This choice was based on that both versions consisted of identical items, which differed in the wording. Both versions were designed as follows: under each dimension, there was a sentence designed as a question that in the patient version started with ‘How do you assess your ability to… for example, “focus attention?” or “carry out daily routines?”’ The staff version started with the phrase ‘How do you assess the patient’s ability to…?’ followed by identical items as in the patient version (Johansson et al., 2013). Since this was a completely new assessment tool, it was considered most important to start testing the patient version. At this point, to test the staff version was not considered feasible within the context of the study or research project.
Study II

An intervention was carried out at three psychiatric wards and two psychiatric outpatient service centres (in this study, all participating units are called wards). The new working method for functional assessment was introduced, i.e. the DLDA tool. A number of nurses from each ward participated in a training programme where they were trained in the ICF and the use of DLDA. The training programmes consisted of lectures and workshops. Key participants were selected as carriers who took the new approach back to the wards for use as intervention. A number of focus group interviews were conducted before the implementation and one year after the introduction of the DLDA. In September 2011, prior to implementation, two focus group interviews were held, with key participants, representing the inpatient wards (focus group I) and outpatient wards that participated (focus group II). At the end of 2012 and the beginning of 2013, new focus group interviews were held in order to discover how the implementation process had proceeded. This time the focus group interviews were held with key participants at each of the participating wards with the intention to investigate the process at each ward.

Figure 2. An overview of the development of the DLDA tool.
Study III
Informed consent was obtained from the head of the clinic and the clinic management before the study started. The head managers of the wards and outpatient clinics were informed at a clinic management meeting three weeks before the study started. Each participant was given written information and could choose whether or not they would participate in the study. Furthermore, two of the wards and four of the outpatient clinics were also given oral information about the study before the study started. The head managers of the other wards and outpatient clinics (4) were contacted once again and were given information about the study. The questionnaires were handed over to the head manager who distributed it to the participants. The HR department provided details regarding name and workplace of the 133 participants. A letter explaining the aim of the study was distributed. The self-administered questionnaire was labelled with a code. The code contained information about the unit and the staff who completed the questionnaire. The completed questionnaires were returned to one of the authors (CJ). One reminder note was sent out after 14 days.

Study IV
In this study, the inpatient wards (I.W. 1–3) and an additional control hospital participated (C.W. 1–2). The reason why the outpatient wards from Studies II and III were excluded was due to the difficulty to compare inpatient with outpatient psychiatric nursing care (The Swedish Association of Local Authorities and Regions, 2010). The effects of the model were studied after the intervention in terms of participation and empowerment, and a comparison between the intervention wards and the control wards was conducted. The intervention group consisted of key participants (Study II) who were members of the nursing staff. The key participants were educated in ICF and trained to operate the DLDA tool. At the wards (intervention group), all participating patients answered the questions synchronously with their contact person (key participant), in order to achieve a structured dialogue and to encourage the patient to participate. Then, the patients were invited to fill in two additional instruments concerning empowerment (Hansson & Björkman, 2005) and quality in psychiatric care (Schröder et al., 2010). The control group included two psychiatric inpatient wards at a hospital located in a small town and rural region of the country. The staff at the control wards were unfamiliar or had no training in ICF or DLDA prior to the study. Besides DLDA (Johansson et al., 2013), the control group filled in the same questionnaires (Björkman & Hansson, 2005; Schröder et al., 2010) as the intervention group. The nursing staff at the control group were also invited to fill in the questionnaire of OVQ (Reino et al., 2007), same as the nursing staff of the intervention group did in Study III (Johansson, et al., 2014), and a comparison between the intervention wards and control wards were conducted regarding organisational culture.

Process of analysis
Study I
Descriptive statistics were used to analyse the demographic characteristics of expert group III who were assessing the patient cases. Analysis of the inter-rater reliability (Polit & Tantano Beck, 2008; Viera & Garett, 2005; Stemler, 2004) was given κ-values, showing weighted and unweighted values. The weighted values were presented
in a linear and quadratic format. (Streiner & Norman, 2008; Jakobsson & Westergren, 2005). Accuracy (Göransson, Ehrenberg, Marklund & Ehnfors, 2005) was given in percentages (Polit & Tantano Beck, 2008). Chronbach’s alpha measured 0.96.

**Study II**

The pre-implementation data were descriptive in nature. The post-implementation data were analysed through directed content analysis (Hsieh & Shannon, 2005) and Normalization Process Theory, NPT (May, 2006; May et al., 2007, 2009). NPT guided the categories of: coherence, cognitive participation, collective action, reflexive monitoring and associated subcategories (May & Finch, 2009). The coding of data using the predetermined categories and subcategories of NPT was made immediately after the data collection.

**Study III**

Means and standard deviations were used for descriptive purposes. The data were entered into the SPSS version 18 and then controlled. This study was performed at three hospital wards and eight outpatient clinics within the intervention hospital. The outpatient clinics were measured as one unit. A calculation of Cronbach’s alpha of the items in the subscales showed values between 0.75 and 0.89, which were measured to be tolerable according to Brace, Kemp and Snelgar (2006). All tests were two-tailed and statistical significance was estimated at p<0.05 (Altman, 1991). The analysis stems mainly from descriptive data and regressions (bivariate and multiple).

**Study IV**

Means and standard deviation of Empowerment scale, ES (Hansson & Björkman, 2005), QPC-IP (Schröder et al., 2010) and OVQ (Reino et al., 2007) were calculated and used for descriptive purposes. This study was preceded by a pilot study before the implementation began in order to evaluate the choice of surveys. This pilot study, however, had to be cancelled because of too few answers. Consequently, the research group had to cut down on the questionnaires both in number of questionnaires and number of questions (c.f. Boor, Van der Veleuten, Scherpbier & Schelle, 2011). As a result, there was a reduction of statements (c.f. Dayan & Bar-Hill, 2011). Thus, the study included a combination of two instruments: nine statements for the Empowerment scale (ES) (Hansson & Björkman, 2005) and twelve statements for Quality in psychiatric care among inpatients (QPC-IP) (Schröder et al., 2010). The original versions of the ES (Hansson & Björkman, 2005) and QPC-IP (Schröder et al., 2010) consisted of 28 and 30 statements each.

The 4-point scales were converted into 5-point scales in order to be presented in a comparative diagram. The homogeneity of the items in the ES statements (n=9) and QPC-IP statements (n=12) included in this study was analysed through a calculation of Cronbach’s Alpha showing values of 0.91 and 0.89, respectively. An inter item correlation was calculated (e.g. Briggs & Cheek, 1986), which showed a mean value of 0.54.

OVQs (Reino et al., 2007) were distributed to the nursing staff at the control wards (C.W) showing Cronbach alpha values between 0.75 and 0.89. This 10-point OVQ scale was converted into a 5-point scale by linear transformation (Dawes, 2008) in or-
der to be presented in a comparative diagram. Data were analysed using the statistical software of SPSS (IBM Statistic Package for Social Sciences) version 21.

**Ethical considerations**

Studies I–IV were approved by the head of the clinics and senior management before the studies started. Studies I, III and IV were approved by the Regional ethical review board in Gothenburg. Study II was approved by the local ethical review of University West.

In Study I, the participants received a letter explaining the aim of the study and that they could choose whether they wanted to participate or not. The study was approved by the Regional Ethical Review Board in Gothenburg No. 688-11.

In Study II, the participants received written information about the study and were informed that participation was voluntary before the interviews. The names of the participants were substituted in the transcript (reg. No.: 2011/712 B22).

The participants of Study III also received written information about the aim and that participation was voluntary, and the study was approved by the Regional ethical review board in Gothenburg No: 407-11.

The key participants of the intervention group and the nursing staff in the control group in Study IV received oral and written information about the study. They were then allowed to invite patients to the study. The written information contained the study’s purpose and informed consent and stated that participation was voluntary. The study was approved by the regional ethical review board in Gothenburg No: 687-11.

All Studies I–IV were complied with the ethical procedures stipulated by Swedish law (SFS 2003:460; SFS 2008:192).
FINDINGS

Study I

The purpose was to test inter-rater reliability of DLDA tool

κ-statistics

The four patient cases showed quadratic, linear and unweighted κ-values of 0.73, 0.65 and 0.38, respectively. The quadratic weighted κ-values presented a variation from 0.58 to 0.83. The linear weighted κ-values varied between 0.51 to 0.78, and the unweighted κ-values ranged from 0.26 to 0.43.

The quadratic weighted κ-value, the most permissive of κ-values, displayed very good agreement in one of the patient cases (4), good agreement in two of them (1 and 2) and moderate agreement in one of the cases (3). Two of the patient cases (2 and 3) showed an unweighted κ-value regarded as fair agreement; the other two showed moderate agreement (1 and 4) (Table 4).

<table>
<thead>
<tr>
<th>Patient cases</th>
<th>Unweighted κ-value</th>
<th>Linear weighted κ-value</th>
<th>Quad. Weighted κ-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.43</td>
<td>0.67</td>
<td>0.79</td>
</tr>
<tr>
<td>2</td>
<td>0.40</td>
<td>0.64</td>
<td>0.71</td>
</tr>
<tr>
<td>3</td>
<td>0.26</td>
<td>0.51</td>
<td>0.58</td>
</tr>
<tr>
<td>4</td>
<td>0.41</td>
<td>0.78</td>
<td>0.83</td>
</tr>
<tr>
<td>Mean</td>
<td>0.38</td>
<td>0.65</td>
<td>0.73</td>
</tr>
</tbody>
</table>

Table 4. κ-Values for Each Patient Case, Assessed by Expert Group III

In terms of accuracy (63%), homogeneity (unweighted κ-value of 0.73) and consistency (Cronbach alpha of 0.96), the DLDA tool showed sufficient results (Table 5).

<table>
<thead>
<tr>
<th>Consistency</th>
<th>(Cronbach alpha) 0.96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homogeneity</td>
<td>(quadratic weighted κ-value) 0.73</td>
</tr>
<tr>
<td>Accuracy</td>
<td>63%</td>
</tr>
</tbody>
</table>

Table 5. Finalised DLDA Tool in Terms of Internal Consistency, Homogeneity and Accuracy
The patient cases displayed a mean accuracy of 63%. Patient cases 1–3 showed a moderate to low accuracy (62%, 58% and 48%) while patient case 4 showed a substantial accuracy of 82% (Table 6).

Table 6. Accuracy of patient cases 1-4, distributed in dimensions and items

<table>
<thead>
<tr>
<th>DLDA Dimensions (A-I) &amp; Items</th>
<th>Patient case 1 Accuracy %</th>
<th>Patient case 2 Accuracy %</th>
<th>Patient case 3 Accuracy %</th>
<th>Patient case 4 Accuracy %</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>97</td>
<td>97</td>
<td>88</td>
<td>-</td>
</tr>
<tr>
<td>A2</td>
<td>97</td>
<td>97</td>
<td>16</td>
<td>-</td>
</tr>
<tr>
<td>A3</td>
<td>91</td>
<td>63</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>A4</td>
<td>91</td>
<td>69</td>
<td>22</td>
<td>-</td>
</tr>
<tr>
<td>A5</td>
<td>-</td>
<td>38</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>A6</td>
<td>56</td>
<td>47</td>
<td>31</td>
<td>22</td>
</tr>
<tr>
<td>A7</td>
<td>-</td>
<td>56</td>
<td>63</td>
<td>75</td>
</tr>
<tr>
<td>A8</td>
<td>53</td>
<td>38</td>
<td>50</td>
<td>88</td>
</tr>
<tr>
<td>B1</td>
<td>69</td>
<td>50</td>
<td>69</td>
<td>84</td>
</tr>
<tr>
<td>B2</td>
<td>-</td>
<td>16</td>
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<td>78</td>
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<td>B3</td>
<td>59</td>
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<td>88</td>
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<td>C1</td>
<td>28</td>
<td>50</td>
<td>-</td>
<td>-</td>
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<td>C2</td>
<td>69</td>
<td>50</td>
<td>19</td>
<td>-</td>
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<tr>
<td>C3</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>C4</td>
<td>94</td>
<td>53</td>
<td>38</td>
<td>-</td>
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<tr>
<td>D1</td>
<td>69</td>
<td>75</td>
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<tr>
<td>D2</td>
<td>84</td>
<td>47</td>
<td>78</td>
<td>-</td>
</tr>
<tr>
<td>E1</td>
<td>44</td>
<td>78</td>
<td>-</td>
<td>84</td>
</tr>
<tr>
<td>E2</td>
<td>-</td>
<td>-</td>
<td>28</td>
<td>81</td>
</tr>
<tr>
<td>E3</td>
<td>50</td>
<td>78</td>
<td>56</td>
<td>84</td>
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<tr>
<td>E4</td>
<td>-</td>
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<td>-</td>
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<td>E5</td>
<td>25</td>
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<td>E6</td>
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<td>19</td>
<td>97</td>
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<td>E7</td>
<td>88</td>
<td>91</td>
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<td>-</td>
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<tr>
<td>E8</td>
<td>94</td>
<td>88</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>F1</td>
<td>31</td>
<td>-</td>
<td>56</td>
<td>81</td>
</tr>
<tr>
<td>F2</td>
<td>22</td>
<td>-</td>
<td>59</td>
<td>81</td>
</tr>
<tr>
<td>G1</td>
<td>53</td>
<td>28</td>
<td>-</td>
<td>84</td>
</tr>
<tr>
<td>G2</td>
<td>-</td>
<td>50</td>
<td>63</td>
<td>91</td>
</tr>
<tr>
<td>G3</td>
<td>53</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>G4</td>
<td>-</td>
<td>-</td>
<td>38</td>
<td>66</td>
</tr>
<tr>
<td>H1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>H2</td>
<td>47</td>
<td>59</td>
<td>72</td>
<td>84</td>
</tr>
<tr>
<td>H3</td>
<td>63</td>
<td>-</td>
<td>63</td>
<td>84</td>
</tr>
<tr>
<td>I1</td>
<td>-</td>
<td>34</td>
<td>56</td>
<td>81</td>
</tr>
<tr>
<td>I2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mean</td>
<td>62</td>
<td>58</td>
<td>48</td>
<td>82</td>
</tr>
</tbody>
</table>
Study II

The purpose was to highlight the implementation process of DLDA tool.

Pre-implementation of DLDA

Almost all who participated in the two pre-implementation focus groups revealed that they were aware of the ICF. They considered it difficult but useful. However, the awareness of the ICF was limited among colleagues, and it was not applied at the wards.

The participants hoped for a new adapted tool that was easier to use than the traditional classification. However, participants had poor experiences of previous implementations prior to the DLDA tool.

Post-implementation of DLDA

A year after the introduction of the DLDA tool, new focus group interviews were performed in order to evaluate the implementation process.

Coherence

DLDA tool was considered useful because it focused on functions and daily life. It was also considered a suitable basis for care planning. It was recognised as a useful tool for identifying patients’ strengths, not just their limitations. DLDA encouraged patients to reflect.

Another experience was that some colleagues had acquired a new way of thinking where they saw the patient not only based on their diagnosis, but also their everyday functions when they encountered new patients. DLDA was considered useful for dialogue, which was otherwise easily overlooked. The participants also experienced that patients had started to appreciate having structured dialogues with their contact person. One ward saw the potential of empowering patients using the DLDA. The participants also revealed some difficulties, for example, it was a bit difficult to make assessments of patients simply by talking to them since the participants preferred to do observations. To get other staff members to participate also proved to be difficult.

Cognitive participation

One ward (ward 5) in particular, out of the five, experienced a positive implementation process of DLDA. This experience was not fully shared by staff at the other wards, where it was difficult to engage other staff members. A reason for this slow implementation process, emphasised by several participants, was due to lack of time. Other factors contributing to slow implementation process were considered to be: time pressure, heavy workload, stress and lack of any routine in using the tool. Information, reminders and tutoring were all suggestions on how to improve conditions to ensure that the DLDA would become part of daily practice and be sustained.

Collective action

At this point, the statements by staff start to fade: Wards 1 and 2 had no statements at all related to this category, and both these wards did not use the DLDA tool in prac-
tice. However, all staff in Ward 1 had started to discuss patient’s functioning after the introduction of DLDA, which could be interpreted as an approach characterised by the ICF. Wards 3–5 operationalised the DLDA in somewhat different ways, but what was in common was that DLDA was used as a tool for starting dialogues. DLDA was also used with occupational therapy investigations.

**Reflexive monitoring**

Fewer statements were found in this category - reflexive monitoring - than in the other categories. Only Ward 5 displayed statements related to all of the subcategories (Table 7).

**Table 7.** An overview of the implementation process related to the NPT theory divided in the five wards, inpatient (I.W.) and outpatient wards (O.W.)

<table>
<thead>
<tr>
<th>Ward</th>
<th>C-D</th>
<th>C-CS</th>
<th>C-IS</th>
<th>C-IM</th>
<th>CP-I</th>
<th>CP-E</th>
<th>CP-L</th>
<th>CP-A</th>
<th>CA-IW</th>
<th>CA-RI</th>
<th>CA-SW</th>
<th>CA-CI</th>
<th>RM-S</th>
<th>RM-CA</th>
<th>RM-LA</th>
<th>RM-R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I.w.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>2 I.w.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>3 I.w.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>4 o.w.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

C-D=Coherence and subcategory of Differentiation; C-CS=Coherence and subcategory of Communal specification; C-IS=Coherence and subcategory of Individual specification; C-IM=Coherence and subcategory of Internalised meaning; CP-I=Cognitive Participation and subcategory of Initiation; CP-E=Cognitive Participation and subcategory of Enrolment; CP-L=Cognitive Participation and subcategory of Legitimation; CP-A=Cognitive Participation and subcategory of Activation of DLDA; CA-IW=Collective Action and subcategory of Interactional workability; CA-RI=Collective Action and subcategory of Relational Integration; CA-SW=Collective Action and subcategory of Skill-set Workability; CA-CI=Collective Action and subcategory of Contextual Integration; RM-S=Reflexive Monitoring and subcategory of Systematisation; RM-CA=Reflexive Monitoring and subcategory of Communal appraisal; RM-LA=Reflexive Monitoring and subcategory of Individual appraisal; RM-R=Reflexive Monitoring and subcategory of Reconfiguration.

The DLDA tool was understood and assessed by Ward 5 as a tool for identifying changes of patients’ functioning over time, or a tool for providing information during a short period of time. It also provided a common language for the team and finally a tool to plan nursing care.

**Study III**

The purpose was to increase awareness of different cultural dimensions that had the potential to contribute to the outcome of a change process.

**OVQ and RTC**

**Descriptive statistics**

The mean resistance to change (RTC) indicates that the respondents of the intervention hospital have a tendency to avoid alternative perspectives and ideas, since the subscale of cognitive rigidity (CR) received the highest value (M=3.63, SD=0.89). Emotional reaction (ER) came second, and it represented a collective unwillingness to participate in change processes (M=2.69, SD=0.99). Routine seeking (RS) was not far behind (M=2.22, SD=0.81). Short-term focus (STF) received the lowest scale of 2.17 (SD=0.8), which indicated that the respondents did not defend themselves from changes due to the short-term disadvantage that the changes that might bring. The
total mean resistance to change (RTC) on the 6-point scale was 2.67 (SD=0.87), and the RTC range was from 2.03 to 4.01 (Table 8) (Figure 3).

### Table 8. Mean values for RTC scale, divided into subscales and hospital wards (inpatient care) and outpatient care (n=109)

<table>
<thead>
<tr>
<th>RTC subscale</th>
<th>Ward 1</th>
<th>Ward 2</th>
<th>Ward 3</th>
<th>Inpatient care</th>
<th>Outpatient care</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTC</td>
<td>2.98</td>
<td>2.73</td>
<td>2.63</td>
<td>2.78</td>
<td>2.56</td>
<td>2.67</td>
</tr>
<tr>
<td>Routine seeking</td>
<td>2.5</td>
<td>2.15</td>
<td>2.32</td>
<td>2.32</td>
<td>2.1</td>
<td>2.22</td>
</tr>
<tr>
<td>Emotional reaction</td>
<td>3.05</td>
<td>2.68</td>
<td>2.38</td>
<td>2.70</td>
<td>2.67</td>
<td>2.69</td>
</tr>
<tr>
<td>Short-term focus</td>
<td>2.37</td>
<td>2.31</td>
<td>2.03</td>
<td>2.24</td>
<td>2.09</td>
<td>2.17</td>
</tr>
<tr>
<td>Cognitive rigidity</td>
<td>4.01</td>
<td>3.76</td>
<td>3.78</td>
<td>3.85</td>
<td>3.38</td>
<td>3.63</td>
</tr>
</tbody>
</table>

![Figure 3. Distribution of RTC in hospital wards (inpatient care) and outpatient care.](image)

The mean values of OVQ revealed that the clinic was characterised by human relation properties (HR) such as flexibility, cohesion, and belongingness (M=6.59, SD=1.36). Open systems (OS) came next, which indicated a culture of openness to experiments and benchmarking (M=6.0, SD=1.27), followed by internal processes (IP) and rational goals (RG) (M=5.71, SD=0.84) (M=5.66, SD=1.09). Ward 3 stood out as the only ward, not dominated by HR, but internal processes (M=5.77, SD=1.08) and presented almost equal mix of the four different cultures (Table 9) (Figure 4).

### Table 9. Mean values for OVQ scale, divided into subscales and hospital wards (inpatient care) and outpatient care (n=109)

<table>
<thead>
<tr>
<th>OVQ subscale</th>
<th>Ward 1</th>
<th>Ward 2</th>
<th>Ward 3</th>
<th>Inpatient care</th>
<th>Outpatient care</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVQ</td>
<td>5.84</td>
<td>6.10</td>
<td>5.52</td>
<td>5.80</td>
<td>6.18</td>
<td>5.98</td>
</tr>
<tr>
<td>Human Relations</td>
<td>6.15</td>
<td>7.13</td>
<td>5.41</td>
<td>6.23</td>
<td>6.94</td>
<td>6.59</td>
</tr>
<tr>
<td>Open Systems</td>
<td>5.96</td>
<td>5.93</td>
<td>5.52</td>
<td>5.80</td>
<td>6.21</td>
<td>6.00</td>
</tr>
<tr>
<td>Rational Goals</td>
<td>5.43</td>
<td>5.42</td>
<td>5.36</td>
<td>5.40</td>
<td>5.92</td>
<td>5.66</td>
</tr>
<tr>
<td>Internal processes</td>
<td>5.81</td>
<td>5.74</td>
<td>5.77</td>
<td>5.77</td>
<td>5.65</td>
<td>5.71</td>
</tr>
</tbody>
</table>
Bivariate and multiple regressions

Bivariate and multiple regressions were carried out in order to test the effect of the four different dimensions of organisational cultures and resistance to change. The bivariate regressions showed non-significant values concerning internal processes (IP), rational goals (RG) and resistance to change (RTC).

Human relation (HR) was not significantly associated with ER, STF or CR of the RTC. However, HR dimension showed significant values concerning RS (routine seeking) of RTC (Table 10). Also OS (open systems) displayed four items, which were significantly associated with RS, yet displaying low R-values. A multiple regression showed that just 20% of the decreased routine seeking behaviour (RS) could be explained by HR and OS factors, since HR factors together explained 11% (R=-0.34, R2=0.11, p<0.05) and OS factors 9% (R=-0.30, R2=0.09, p<0.05).

Table 10. Bivariate regression of items in the HR dimension and the RTC scale (sign.=p<0.05). Dependent variable: routine seeking (RS). Independent variables: HR.

<table>
<thead>
<tr>
<th>Item</th>
<th>R</th>
<th>R2</th>
<th>F-value</th>
<th>T-value</th>
<th>Sign.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We are helpful to one another</td>
<td>-0.16</td>
<td>0.03</td>
<td>2.77</td>
<td>1.66</td>
<td>0.09</td>
</tr>
<tr>
<td>2. We have flat nonhierarchical structures</td>
<td>-0.22</td>
<td>0.05</td>
<td>5.28</td>
<td>2.3</td>
<td>0.02</td>
</tr>
<tr>
<td>3. We are proud of belonging to this ward</td>
<td>-0.26</td>
<td>0.07</td>
<td>7.94</td>
<td>2.82</td>
<td>0.01</td>
</tr>
<tr>
<td>4. The internal cooperation is important</td>
<td>-0.25</td>
<td>0.06</td>
<td>7.02</td>
<td>2.65</td>
<td>0.01</td>
</tr>
<tr>
<td>5. Different duties are not strictly divided</td>
<td>-0.13</td>
<td>0.02</td>
<td>1.86</td>
<td>1.36</td>
<td>0.18</td>
</tr>
<tr>
<td>6. There is a tolerance to mistakes</td>
<td>-0.19</td>
<td>0.04</td>
<td>4.19</td>
<td>2.05</td>
<td>0.04</td>
</tr>
<tr>
<td>7. We gladly take part in joint events</td>
<td>-0.09</td>
<td>0.01</td>
<td>0.84</td>
<td>0.91</td>
<td>0.36</td>
</tr>
<tr>
<td>8. We see each other after working hours</td>
<td>-0.13</td>
<td>0.02</td>
<td>1.95</td>
<td>1.4</td>
<td>0.17</td>
</tr>
<tr>
<td>9. The management trust us</td>
<td>-0.26</td>
<td>0.07</td>
<td>7.57</td>
<td>2.75</td>
<td>0.01</td>
</tr>
<tr>
<td>10. We are like one big family</td>
<td>-0.02</td>
<td>0</td>
<td>0.06</td>
<td>0.25</td>
<td>0.8</td>
</tr>
<tr>
<td>11. We often talk about private issues</td>
<td>-0.02</td>
<td>0</td>
<td>0.06</td>
<td>0.25</td>
<td>0.8</td>
</tr>
<tr>
<td>12. Social competence is important here</td>
<td>-0.22</td>
<td>0.05</td>
<td>5.62</td>
<td>2.37</td>
<td>0.02</td>
</tr>
<tr>
<td>13. Working here induces confidence</td>
<td>-0.22</td>
<td>0.05</td>
<td>5.27</td>
<td>2.23</td>
<td>0.02</td>
</tr>
</tbody>
</table>
Study IV

The purpose was to examine the implementation of a new working method in the psychiatric hospital, representing different cultural characteristics.

**Descriptive statistics of OVQ**

Mean values of OVQ for both intervention and control group (Table 11) reveals a dominance of HR (M=3.23 SD=0.64), followed by OS (M=2.95, SD=0.6), IP (M=2.9, SD=0.47) and RG (M=2.7, SD=0.56). At ward level, HR was in dominance in all wards, despite I.W.3, which displayed the highest mean value of IP (M=2.89, SD=0.54), closely followed by OS (M=2.76, SD=0.74), HR (M=2.71, SD=0.69) and RG (M=2.68, SD=0.64) (Table 11).

<table>
<thead>
<tr>
<th>Ward</th>
<th>OS</th>
<th>HR</th>
<th>IP</th>
<th>RG</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.W.1</td>
<td>2.98</td>
<td>3.08</td>
<td>2.91</td>
<td>2.72</td>
</tr>
<tr>
<td>I.W.2</td>
<td>2.97</td>
<td>3.57</td>
<td>2.87</td>
<td>2.71</td>
</tr>
<tr>
<td>I.W.3</td>
<td>2.76</td>
<td>2.71</td>
<td>2.89</td>
<td>2.68</td>
</tr>
<tr>
<td>C.W.1</td>
<td>3.22</td>
<td>3.56</td>
<td>2.88</td>
<td>2.84</td>
</tr>
<tr>
<td>C.W.2</td>
<td>2.77</td>
<td>3.25</td>
<td>2.94</td>
<td>2.49</td>
</tr>
<tr>
<td>Interv. Hosp.</td>
<td>2.91</td>
<td>3.1</td>
<td>2.89</td>
<td>2.70</td>
</tr>
<tr>
<td>Contr. Hosp.</td>
<td>3.01</td>
<td>3.42</td>
<td>2.9</td>
<td>2.68</td>
</tr>
<tr>
<td>All</td>
<td>2.95</td>
<td>3.23</td>
<td>2.9</td>
<td>2.70</td>
</tr>
</tbody>
</table>

Table 11. Mean values for OVQ scale, divided into participating wards and hospitals (p>0.26)

**Distribution of the Empowerment scale**

In the intervention hospital, the empowerment scale showed a mean of 1.7 (SD=0.73) on a 5-point scale. The control hospital displayed a value of 1.9 (SD=0.76). The lowest value of empowerment could be found at I.W.1 (M=1.44, SD=0.79), followed by I.W.2 (M=1.62 SD=0.74). C.W.2 came third displaying a value of 1.77 (SD=0.75), followed by I.W.3 showing a mean value of 1.89 (SD=0.85) whereas C.W.1 represented the highest level of empowerment (M=2.12 SD=0.74) (Table 12).

<table>
<thead>
<tr>
<th>Ward</th>
<th>Mean</th>
<th>Std.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.W.1</td>
<td>1.44</td>
<td>0.79</td>
</tr>
<tr>
<td>I.W.2</td>
<td>1.62</td>
<td>0.74</td>
</tr>
<tr>
<td>I.W.3</td>
<td>1.89</td>
<td>0.85</td>
</tr>
<tr>
<td>C.W.1</td>
<td>2.12</td>
<td>0.74</td>
</tr>
<tr>
<td>C.W.2</td>
<td>1.77</td>
<td>0.75</td>
</tr>
<tr>
<td>Interv. Hosp.</td>
<td>1.7</td>
<td>0.73</td>
</tr>
<tr>
<td>Contr. Hosp.</td>
<td>1.9</td>
<td>0.76</td>
</tr>
<tr>
<td>All</td>
<td>1.81</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Table 12. Mean values for Empowerment scale, divided into participating wards and hospitals (p>0.08)
Distribution of the QPC-IP scale

The QCP-IP scale showed a mean value of 2.49 (SD=0.75), which ranged from 2.17 to 2.65 in the intervention hospital. The control hospital showed a total mean value 2.51 (SD=0.73). The lowest value of “participation” could be found at I.W. 2 (2.17, SD=1.03) and I.W. 1 (M=2.44, SD=0.73). C.W.1 came next and displayed a value of 2.49 (SD=0.78) closely followed by C.W. 2 representing a mean value of 2.54 (SD=0.71). The ward representing the highest value of “participation” could be found at I.W. 3 (2.65, SD=0.61) (Table 13).

<table>
<thead>
<tr>
<th>Ward</th>
<th>Mean</th>
<th>STD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.W.1</td>
<td>2.44</td>
<td>0.73</td>
</tr>
<tr>
<td>I.W.2</td>
<td>2.17</td>
<td>1.03</td>
</tr>
<tr>
<td>I.W.3</td>
<td>2.65</td>
<td>0.61</td>
</tr>
<tr>
<td>C.W.1</td>
<td>2.49</td>
<td>0.78</td>
</tr>
<tr>
<td>C.W.2</td>
<td>2.54</td>
<td>0.71</td>
</tr>
<tr>
<td>Interv.hosp.</td>
<td>2.45</td>
<td>0.76</td>
</tr>
<tr>
<td>Contr.hosp.</td>
<td>2.51</td>
<td>0.73</td>
</tr>
<tr>
<td>All</td>
<td>2.49</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Table 13. Mean values for QPC-IP scale, divided into participating wards and hospitals (p>0.67)

A closer look at the figures in a diagram illustrates the dominance of HR, followed by OS in all the studied wards at both intervention and control hospitals. I.W. 3 stands out as displaying an almost equal mix of all cultural dimensions (Figure 5). ES and QCP-IP scales inserted into the OVQ scale diagram reveal low empowerment reported in all the five wards. The scale shows a slightly stronger result in I.W.3 and C.W.1. QPC-IP reveals reasonably consistent results among I.W.1, C.W.1 and C.W.2. The scale shows a stronger result in I.W.3 and a poor result in I.W. 2 (Figure 5).

Figure 5. Distribution of cultural characteristics, ES and QPC-IP in the five studied wards.
Summary of main findings for Studies I–IV

- The results of inter-rater reliability of the DLDA tool displayed acceptable kappa values when using simulated patient cases (Study I).

- The DLDA tool was considered useful for dialogues, reflection and for identifying patients’ strengths. It also showed the potential for empowering patients (Study II).

- Regarding the implementation process of DLDA, the participants found it difficult to get full engagement from colleagues. The implementation of DLDA only succeeded in one of five wards, ward 5 (an outpatient ward), while ward 3 succeeded the best of the inpatient wards. Factors contributing to a slow implementation process were considered to be time pressure, heavy workload, stress, lack of routines in using the tool as well as lack of nursing staff (Study II).

- The intervention hospital was characterised by a human relation (HR) culture that favours trust, belongingness and flexibility. Only one of five wards (I.W.3) was not dominated by HR. It displayed an almost equal mix of the four different cultures (human relation, open systems, internal processes and rational goal) (Study III).

- The overall results in Study IV were non-significant. However, the results indicated that the included psychiatric wards were dominated by HR cultures. ES and QCP-IP scales inserted into the OVQ scale diagram revealed a low empowerment in all the five wards. The results indicate that I.W. 3 was the most prominent regarding both empowerment and patient participation among the intervention group. The results tentatively indicate an association between organisational culture and patient’s perception of empowerment at the studied hospital wards. The results suggest a culture of balanced diversity as more successful than cultural polarisation (Study IV).
DISCUSSION

DLDA tool- utility, empowerment and participation

Bracken et al. (2012) argue that psychiatry needs to broaden the medical perspective and look at other opportunities to develop psychiatric care. For example, Tenorio-Martinez, del Carmen Lara- Muñoz and Medina-Mora (2009) believe that ICF (WHO, 2001a) is well suited for describing functions in people with mental disorders. In this thesis, the DLDA tool, based on the ICF, has the potential for empowering patients and is considered useful for starting dialogues, reflection and identifying patients’ strengths, according to nursing staff who participated in this project (Alverbratt et al., 2014). The results are consistent with how empowerment is seen in this study, i.e. empowerment is considered as a tool the caregiver can use to support and strengthen individuals’ power to adopt or overcome their own difficulties. This is in accordance with Tambuyzer et al.’s (2011) study where they found that professionals themselves could not empower patients; thus, staff can just enable a caring context that creates opportunities for empowerment. The results of this study suggest that DLDA could be an appropriate tool contributing to empowerment, but more research is needed (Alverbratt et al., 2014). Furthermore, it may not be realistic to believe that the ICF- activity and participation based assessment tool (DLDA) developed in this research project will lead to involvement in a life situation, according to how ICF defines participation (WHO, 2001a). But it can be a prerequisite for a sufficient assessment, which will hopefully ensure an improved ability to plan for the patient’s care. The DLDA tool can be the first step, i.e. assessment and underpinning the entire nursing process (Figure 6).

![Figure 6. The DLDA tool in connection with the nursing process (c.f. Ehnfors et al., 2000).]

Earlier studies show that psychiatric inpatients rate themselves low when it comes to participation regarding information and treatment (Schröder, Wilde Larsson & Ahlström, 2007; Schröder et al., 2010). Of all included wards in this study, I.W. 3 showed the highest mean value for patient assessed participation among both intervention and control wards. Based on the distribution of organisational cultures, I.W. 3 showed expected results. However, when it comes to patient assessed empowerment, I.W. 3 just showed the highest mean value, compared to the rest of the intervention wards (Alverbratt et al., 2015; Johansson et al., 2014). Since these results were not significant on a 95% level, more studies are required in order to examine this relationship.
Organisational cultures and implementation process of DLDA tool

Just one of five wards succeeded in implementing the DLDA tool (Alverbratt et al., 2014). According to NPT, one outpatient ward (Ward 5 in Study II) succeeded in implementing, i.e. activating DLDA tool as well as embedding it, namely, routinely incorporates DLDA at the ward. Whether DLDA will be integrated and persist over time remains to be proved (c.f. May & Finch, 2009). The implementation process based on NPT (May, 2006; May et al., 2007, 2009) from coherence to reflexive monitoring only fully succeeded at the outpatient ward (Ward 5). The other wards (1–4) ranged from just meeting the criteria for cognitive participation to nearly completing the criteria for collective action. Among inpatient wards, ward 3 succeeded the best, however, not completely. The results confirm previous studies that argue that it is difficult to implement new practices in healthcare (Van Acterberg et al., 2008; Torrey et al., 2001; May et al., 2009).

In Alverbratt et al. (2015) and Johansson et al.’s (2014) study, the intervention hospital was characterised by a HR culture that favoured trust, belongingness and flexibility. Only one ward, I.W 3, was not dominated by HR; this ward displayed an almost equal mix of the four different cultures (HR, OS, IP and RG). The results of Alverbratt et al.’s study (2015) suggest a culture of balanced diversity as being more successful than cultural polarisation. Glisson and Williams (2015) assert that organisational culture is one aspect of the social context of mental health service organisations, which affect the whole process of implementation from introduction to sustainability. To change the social context, i.e. organisational culture, takes a lot of work and is time-consuming. In these cases, leadership is an important factor to consider, which has an impact on the organisational culture (Cummings, Estabrooks, Midodzi, Wallin & Hayduk, 2007; Hofstede & Hofstede, 2005; Bate, 1994). Managers as well as employees are important in the construction of a productive organisational culture (Quinn & Rohrbaugh, 1983; Aarons, 2006; Jansson, Pilhammar & Forsberg, 2011). Ogbonna and Harris (2000) state that leadership and culture are closely connected and since it is considered difficult to change an organisational culture, the focus should be on the styles of leadership because it is easier to change leadership styles than changing organisational cultures. Cummings et al. (2007) found that nurses working in organisational cultures characterised by supportive leadership increased their utilisation of research, leading to enhanced safety of patients. Besides NPT (May 2006; May et al., 2007, 2009) and the theoretical framework of organisational cultures (Quinn & Rohrbaug, 1981, 1983), Batalden and Stoltz’s (1993) framework of profound knowledge of improvement could have been applied in this thesis, since the framework emphasises several of the different factors mentioned earlier that need to be considered throughout the research process. The model includes individual professional knowledge and how it affects the organisational knowledge, aiming at improving the value for patients in healthcare.

Organisational barriers of implementing DLDA

The workplace culture and resistance to change are considered to be major organisational barriers when implementing evidence-based practice in healthcare. Other organisational barriers identified were lack of resources, workload, lack of support
Factors contributing to slow implementation process were: time pressure, heavy workload, stress, lack of routine in using the tool and lack of nursing staff (Alverbratt et al., 2014). The results are in accordance with Furäker’s (2009) study, which revealed that nurses just spend a small part of time during a normal working day with patients. Tasks such as documentation, administration, providing assistance to other professionals, writing reports and breaks consumed most of the time. Ploeg, Davies, Edwards, Gifford and Miller (2007) found that negative beliefs and attitudes by staff as well as limitations of time and resources were examples of some barriers when implementing guidelines in clinical practice. In addition to these factors, another explanation could be that organisational blind spots were developed at these wards, as a way to protect the organisation from implementing undesirable and difficult models (Fotaki & Hyde, 2014). This could be compared with Roger’s (1983, 1995, 2003) concept of change agents, where the change agent’s role is to deal with the innovation, or to prevent it from spreading, in order to protect the organisation from unwanted effects that innovation might bring. In summary, it is important to consider how organisational culture affects changing processes in practice, which is in accordance with this current research project, since organisational culture is even more important than professions or individual characteristics when it comes to attitudes towards work (Aarons & Sawitzky, 2006; Glisson, Williams, Green, Hemmelgarn & Hoagwood, 2014).

**Methodological considerations**

The use of simulated patient cases is associated with some limitation, even if the method is widely used (Dilley & Standen, 1998; Gould et al., 2002; Offredy, 2002). However, this was a central step in order to test the reliability of DLDA prior to the implementation. Further research is needed with extended psychometric tests in order to continue developing the DLDA tool.

The bivariate regression analysis showed non-significant associations in most of the cases, only HR dimension of OVQ was significantly associated with the RS (routine seeking) dimension of RCT. However, low R and $R^2$ values were presented.

Both Wards 4 and 5 in the intervention hospital were outpatient wards and were excluded in the study aimed at examining the effects of implementing DLDA at psychiatric hospital wards, representing different cultural characteristics (Alverbratt et al., 2015). They were excluded because during the data collection it became clear that it was not optimal to compare the implementation process between inpatient and outpatient care. This was also confirmed by the literature revealing differences regarding Swedish psychiatric inpatient and outpatient care (The Swedish Association of Local Authorities and Regions, 2010). The results of Study IV were non-significant. This result might be explained by sensibility of the chosen instruments in relation to the purpose and theoretical assumptions of the study. Another explanation could be the limited number of participants in the study group (c.f. Antonsson, 2013). Another methodological consideration was the fact that the study suffered from a lack of baseline data, which made it impossible to determine levels of empowerment and participation at the wards before the implementation of DLDA. Another consideration
was that the instruments were changed in number of items and scales. The converted scales were made in order to allow them to be presented in comparative diagrams, which might have been a limitation of the study.

The choice of focus group interviews in Study II and not individual interviews was because it was considered an appropriate method for data collection to capture how the respondents experienced implementation process in their respective wards. However, it may be questionable to use the term focus group interviews for interviews held after the implementation, since there were so few key participants at each ward. Perhaps it would be more appropriate to call it group interviews (Kitzinger, 1995). There was a recurring dialogue with co-authors during the analysis phase (c.f. Graneheim & Lundman, 2004) in order to ensure trustworthiness. To show how the categories of the NPT reflected the data according to Sandelowski (2010) and Graneheim and Lundman (2004), quotations from respondents were presented in the results. A text can be interpreted in different ways (Krippendorff, 2004). Graneheim and Lundman (2004) argue that the interpretation of a qualitative content analysis involves a balancing act, in which the author already possesses a perspective regarding what is being studied, but the writer must let the text stand for itself and not interpret it as something that does not agree. In the present study, the author has been involved in developing the new working method, DLDA (Johansson et al., 2013) and has previous experience from psychiatric care. This means that the author was influenced by previous history (c.f. Patton, 1990). This might have been a limitation to the study. This could also be seen as a strength because the interviews could easily be held in an informal and relaxed way.

Regarding transferability, the concept was in accordance with Graneheim and Lundman’s (2004) definition that transferability is in the eye of the beholder, that is, if the conditions are comparable with a similar structure as in the present study (Alverbratt et al., 2014), there is a possibility that the results may be transferable. One limitation could be that it may be easier to find supporting evidence, rather than non-supporting evidence to confirm the choice of theory (Hsieh & Shannon, 2005).
CONCLUSION

This is a study of the implementation process of a new working method in the context of psychiatric nursing care. The new working method, DLDA tool, based on the ICF (WHO, 2001a) was developed and psychometrically tested as part of the project. The development and inter-rater reliability of the DLDA tool revealed tolerable kappa values. The implementation process of DLDA at the participating psychiatric wards showed that one of the five wards implemented the tool successfully. However, even if the participants thought that the intent of the method and DLDA was good, it was not used in practice. Factors that contributed to unsuccessful implementation process were: time pressure, heavy workload, stress, lack of routines in using the tool and lack of nursing staff. Previous studies also showed that cultural characteristics and resistance to change affect the implementation processes. The resistance to change, however, showed to be low at the intervention hospital. The organisational culture of the intervention hospital proved to be influenced by human relation properties. However, with one exception, one ward was not characterised by these properties but displayed a mix of different cultural characteristics. This ward, ward 3 did not succeed completely with the implementation process of DLDA but showed the best results among inpatients wards. This ward also showed the best results regarding patient assessed empowerment and participation among the intervention wards, which tentatively shows that organisational cultures may affect the outcomes of implementation processes. The assumption that organisational cultures may affect the implementation processes indeed highlights the importance of identifying the organisational cultures in workplaces that are facing an implementation process (Wilson, McCormack & Ives, 2005). The result confirms the OVQ (Reino et al., 2007) and the theoretical model of Competing Values Framework by Quinn and Rohrbaugh (1981, 1983) as suitable tools. A study of the cultural settings could facilitate future implementations by identifying promising contexts for new working models. The stepwise implementation process of the NPT framework (May, 2006; May et al., 2007, 2009) seemed appropriate, illustrating the implementation process, i.e. the embedding and integration of DLDA. However, a limitation of NPT was the fact that NPT does not seem to take the time dimension into account when investigating the implementation process (Alharbi, Carlström, Ekman & Olsson, 2014).

Clinical implications

The use of DLDA in a psychiatric nursing context can provide a structured support in order to improve the dialogue with the patient, where the function may play a central role when planning the continued care. The DLDA tool can be a complement to the medical perspective. The results of the study representing qualitative data (Alverbratt et al., 2014) indicate that DLDA at this point could be used in the development of psychiatric nursing care as well as serve as an aid in the psychiatric nursing context. When a healthcare organisation is facing an implementation of any kind, it is important to consider the culture of the organisation since it may affect the outcome of the change process (Wilson et al., 2005). Consequently, it appears that organisations characterised by a mix of different cultures is more favourable, which in turn makes demands on all parts of an organisation, from employees to leadership and management.
IMPLICATIONS FOR FURTHER RESEARCH

Henceforth, organisational culture is an important factor to consider, as well as managers and employee’s role in the contribution to a balanced organisational culture (Quinn & Rohrbaugh, 1983; Aarons, 2006; Jansson et al., 2011). However, changing the organisational culture takes time and effort (Glisson & Williams, 2015). It might take unexpected turns and is not always successful. Regarding the DLDA tool, both patient and staff version requires further studies and tests such as construct validity using exploratory factor analysis. An investigation of DLDAs impact on patient assessed empowerment and participation requires further studies with larger populations. The assumption that the DLDA tool contributes to future planning of continued care has not been investigated in this thesis, and new research is needed to investigate this assumption.
SVENSK SAMMANFATTNING

Det är en utmaning att implementera evidensbaserade metoder i hälso- och sjukvården, där organisationskulturen är en av flera olika faktorer som påverkar en implementeringsprocess. Det är känt att konservativa kulturer kan hindra implementeringar. Tidigare forskning visar att en mix av olika kulturer är att föredra i samband med implementering av nya arbetsmetoder.

Världshälsoorganisationens (WHO) klassifikation av funktionstillstånd funktionshindrar och hälsa (ICF) är en förteckning över faktorer som beskriver en individs funktionsförmåga i det dagliga livet. Tidigare forskning menar att ICF kan användas för att bedöma funktioner i hälso- och sjukvården. Trots att olika kortversioner av ICF utvecklats i senaste decenniet saknas det ett lämpligt ICF-baserat verktyg anpassat till psykiatrisk omvårdnad. Dessutom är forskningen kring utfallet av att implementera ICF i hälso- och sjukvården relativt begränsad.


Verktyget är utformat i två versioner, en patientversion och en personalversion, där både patienten och personalen bedömer patientens förmåga. Tanken är att personalen och patienten besvarar sina versioner av verktyget som sedan tjänar som underlag för dialog dem emellan, vilket förväntas öka patientdelaktigheten och empowerment.


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