

Implementation of person-centered care Facilitators and Barriers

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Cover picture: Surviving the desert by Feras SJ Alharbi

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*To my parents, who their love and support was
the sine qua non of my success*

ABSTRACT

Background: One of the major issues facing health systems around the world is the implementation of necessary reforms. In Sweden, many attempts have been made to reform the health care system, however, very few have been successful. The Swedish health care industry has been described as conservative, backward-looking and severely resistant to organizational changes. Furthermore, the reductions in the number of hospital beds and the increasing number of patients with chronic diseases are placing stress on the system. As a result new health care models have been developed to address these issues. One of them is Person-Centered Care (PCC), which its implementations has been attempted within the Swedish health care context. This attempt gave rise for the need to identify presumptive facilitators and barriers during the implementation process.

Aim: To explore the barriers to and the facilitators for the implementation of a new health care model in a hospital setting.

Method: Data from 117 nurses who completed the organizational values questionnaire (OVQ) and 220 hospitalized patients who completed the uncertainty cardiovascular population scale (UCPS) in Paper I, a health-related quality of life instrument (EQ-5D) in Paper II were investigated with regression analysis. Semi-structured interviews were conducted with all of the members of a hospital departments' managerial group (Paper III) and with patients (Paper IV). Interview transcripts were analysed by means of directed deductive content analysis.

Results: In Paper I, the results seemed to indicate that in hospitals where the culture promotes stability, control and goal setting, patient uncertainty was reduced. In Paper II, a decreased health status, pain/discomfort and mobility problems could be attributed to culture being dominated by flexibility. In Paper III, The respondents identified factors, which were perceived as facilitating or obstructing the implementation process. These factors were; organizational culture, distribution of power, patient characteristics, resistance to change, teamwork, efficiency, time and speed of implementation. In Paper IV, Aspects of the newly implemented care model were obvious; however, it was also clear that implementation was not complete. The analysis showed that patients felt listened to and that their own perception of the situation had been noted. Patients felt that the staff saw them as persons and did not solely focus on their disease.

Conclusion: Three factors were found to affect the implementations process: organizational culture, time and actors involvement. Flexibility within the organizational culture was viewed as a facilitator because it helps to induce the change process. However, flexibility was also found to be a barrier to the sustainability of the change. The second factor, time, was perceived very differently by managers. Some thought the implementation process would take two years while others thought it would take a generation. The third factor, an actor's level of involvement, was perceived as a barrier or a facilitator depending on the understanding of roles and responsibilities. This highlights the need to have a clear-cut picture regarding the patient's role in the diagnosis and decision-making processes. Taking these findings into consideration, it becomes clear that it is important to be aware of the culture and perceptions of time. Further research aimed at developing a theoretical framework that accounts for organizational culture and time could help to improve the chances for the successful implementation of a new health care model within different contexts.

Keywords: Implementation, Person-Centred Care, Sweden, Culture, Health management

LIST OF PAPERS

This thesis is based on the following studies, referred to in the text by their Roman numerals.

- I Tariq Saleem J. Alharbi, Inger Ekman, Lars-Eric Olsson, Kerstin Dudas, Eric Carlström. Organizational culture and the implementation of person centered care: Results from a change process in Swedish hospital care.
Health Policy 2012;108:294-301.

- II Tariq Saleem J. Alharbi, Lars-Eric Olsson, Inger Ekman, Eric Carlström. The impact of organizational culture on the outcome of hospital care: After the implementation of person-centred care.
Scandinavian Journal of Public Health 2014;42:104-110.

- III Tariq Saleem Alharbi, Eric Carlström, Inger Ekman, Lars-Eric Olsson. Implementation of person-centred care: management perspective.
Journal of Hospital Administration 2014;3:p107.

- IV Tariq Saleem J. Alharbi, Eric Carlström, Inger Ekman, Anders Jarneborn, Lars-Eric Olsson. Experiences of person-centred care - patients' perceptions: Qualitative study.
Submitted

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INTRODUCTION

One of the major issues facing health systems around the world is the implementation of necessary reforms. In Sweden, many attempts have been made to reform the health care system, however, very few have been successful. Merging processes, closures and the implementation of reforms have been associated with various obstacles including high costs and prolonged implementation periods (Carlström & Ullah 2002; Engström & Rosengren 2002; Brorström & Siverbo 2004;). This inability to give effect to change can be explained on several levels: the socio-political level in health systems, the organizational level and individual level.

This study is concerned with change processes in the Swedish health care sector. It focuses on the implementation of a new care model at a general medical clinic in a hospital in western Sweden.

To introduce the direction of this project, the concluding text will be presented here as well as in the end of this dissertation. The concluding results of the project concern the three key factors regarding the implementation of a new healthcare model: 1) organizational cultures, 2) time and 3) patient involvement. The elaboration of these factors into a common theoretical framework of implementation is also considered. One reason for this is the need to not just consider these factors as barriers but also as facilitators in the implementation process. This can be described using a metaphor of a farmer implementing a new cultivating model. Before making the investment of sowing, the farmer will consider the state of the soil. If the soil is not rich enough, he will either find another place to sow the grain or start to improve the richness of the soil. The farmer is also aware of time factors; even if the new cultivating model has high expectations it will take some time before harvest, especially when implementing the cultivating model for the first time. In the end, the farmer is aware of the risk of no gain at all if the plants are not properly cared for. This simple metaphor is intended to integrate the three main findings of the project: the importance to measure, and if necessary optimize, the organizational culture (i.e., the soil), account for the time to implement the model (i.e., time to harvest) and the involvement of the actors (i.e., give the plants proper care).

There are a number of reasons why change processes are so difficult in health care. The point of departure is that socio-political, organizational and individual levels are intertwined in a historical process where remnants from the past and outdated models continue to survive. Certain actors and collectives influence each other in a dialectic process that constructs a culture in the present organization, often resisting new and evolving models (Scapens 2006).

Hospital culture

Culture has been defined as shared values within a specific context. Such values are created by combining the assumptions held by members within an organization (Hartmann 2009). However, the assumptions within the organization and the ambitions of stakeholders do not always correlate and the cultural aspects of different parts within

a hospital, which is the focus in this study, can affect the care process (Saame et al. 2011). Such differences can create inefficiency and resistance to change. Deep-rooted assumptions have been proven to be obstacles to the implementation of new health-care models (Brorström & Siverbo 2004).

Organizational cultures are, however, viewed as a concentrate of professional cultures mixed into a functional context such as a hospital, department or a ward. Professional cultures are defined as the values and attitudes developed by an independent professional group (Van Maanen & Barley 1984). Some authors distinguish between professional and organizational cultures and propose the professional culture to be dominant in hospital settings. The reason for this is the influence of strong professions with long traditions (Lipsky, 2010). This dissertation follows Saame et al. (2011), who suggest that organizational culture is formed by a synthesis of different professional cultures that emerge when a generalized culture is identified in a ward, department or hospital. Bloor and Dawson (1994) suggest that professional culture interplays with organizational culture. The operating environment of an organization is proposed as a factor that facilitates and constrains the propensity for professional cultures. At the same time, the organizational culture is determined by the professional culture, which often stands for continuity during periods of change (Appelbaum & Wohl 2000).

Agrizzi (2008) shows that healthcare reforms in hospitals do not always develop according to expectations. As an effect of cultures within the organization, the supposed pathway failed to meet the intended results. Knudsen (2002) emphasizes that organizations are structured to maintain a system based on routines. Changes represent a situation of imbalance and are viewed as a threat to stability and traditions. Appelbaum and Wohl (2000) maintain that health care organizations are more skilled at reinforcing the status quo than they are at implementing change. There is a tendency to “consume as many resources as last year”, “maintain the same quality as before” and to “supply the same products that have always been delivered” (Carlström 2012a).

Deeply rooted traditions of hospital care

While primary care has become increasingly important, the health care system in Sweden, as in many other countries, is traditionally based on hospitals and beds, and is the central tool in the health care industry. The Swedish system is a remnant from the early monastery infirmaries (Gustafsson 1987). Deeply rooted traditions have ensured that hospitals - and quite early on - have become an important part of society. Sweden has one of the oldest public health care systems in the world, with its first public health care system established in the sixteenth century (Gustafsson 1989).

Subsequently, the hospital system has a long history in Sweden. It dates back to the sixteenth century when towns and cities employed physicians who provided care (Axelsson 2000). Over the next 200 years, new hospitals were built nearly every year, and most of them are still operating today. Since then, hospitals have played a key role in the Swedish health care system. In the eighteenth century, Sweden had 50 hospitals and approximately 3,000 beds. Most of the hospitals were small, with only 10-30 beds, and initially each hospital only had one physician (Gustafsson 1987; Bergman 1998). A focus on inpatient care has resulted in primary health care being secondary

in terms of investment, popularity and use (Schoen et.al. 2011). Up until the implementation of a national reform in 1992, Ädelreformen, patients were able to stay in hospital for long periods despite them only requiring primary care (Carlström 2005). In Sweden, there is still a higher level of confidence in hospital services than services provided via primary care providers and municipalities (Carlström 2013).

According to Brorström and Siverbo (2004), Swedish health care is built upon deeply rooted traditions and an inertia hindering change processes. It is based on hierarchical structures combining traditions with professions carrying on in a conservative and even backward-looking manner (Carlström, 2012b). New ideas and models can be hindered by long-lasting cultural stability imbedded in broad groups of staff performing the everyday work in different wards. Cutcher (2009) stresses that change initiatives from above are often followed by a reactive phase of resistance from below. Therefore, organizations are not always effective and obedient instruments in management's hands (McWilliam & Ward-Griffin 2006).

Standardization of care

The 1992 reform of the Swedish health care system resulted in a reduced number of hospital beds, and at the same time there was an increase in the number of elderly with chronic diseases. This situation led to a high level of pressure on the health system (Carlström 2005), and this pressure moved the focus to medical treatment. As a result, the introduction of diagnosis related groups (DRG) and cost per patient (KPP) in Sweden induced alternative therapy solutions to shorten the length of hospital stay for many patients (Mikkola 2002; Gathnekar 2004).

Hospital care performed by nurses is characterized as being high tempo (Fransson-Sellgren 2007). The high tempo, financial reforms and lack of resources contributed to a tendency to standardize hospital care (Carlström 2012a). However, when the demand for hospital care increased, patient waiting lists were formed; on some occasions patients had to wait for years to receive the necessary treatment (Schirmer & Michailakis 2011).

This emphasizes the need for care models with higher levels of efficiency, with the possibility to speed up hospital care and simultaneously increase its quality (Fredriksson 2013). Ågren and Axelsson (2011) stress that the care provided needs to establish a firm and stable situation to the patient; that is, a sufficient health status and social situation before discharge. Axelsson and Bihari-Axelsson (2006) suggests that this is necessary because of the need to decrease readmissions and to involve collaborating care organizations such as municipality and primary care providers (Claesson et al. 2003).

Management control

There are two important impact factors to be considered when implementing a new system: the culture flourishing within the different parts of the organization and management control (North 1993; Langfield-Smith 1997). Both factors can act as facilitators or barriers when introducing a new care model. North's (1993) definition of

management control includes management's ability to adjust and stay informed of organizational activities. Management control has been presented in some studies as a powerful tool, used by managers in an obedient and responsive organization. Such naïve perceptions have been illustrated with the idea of a thermostat that acts on simple information with high and reliable performance (Anthony et al. 1998).

Hood (1998) defines management control based on studies on public organizations as the delicate task of producing a public service and carrying through political decisions. Public health care especially is known to be complex and labor intensive, and is expected to deliver services to individuals in difficult situations. Vabo et al. (2000) suggests that the health industry is overloaded and presents challenges greater than any management team can control.

Management with only partial control or one that is too flexible can have a negative effect on employees. Employees' commitment can be affected and their loyalty decreased (Hirschman 1970). On the other hand, conservative and rigid behavior can contribute to widespread dissatisfaction among employees. In that situation, staff may choose to act of their own will, avoiding management control (Screpanti 1995).

Ouchi (1977) suggests that the management style in public organizations is more likely to be easy-going. Furthermore, it can be assumed that there is an established and consistent congruence between management and employees in such organizations. Based on this assumption, accountability is not a priority because the effect of control is regarded as predictive and obvious. The behavior will induce two contradictory imperatives to exist side-by-side: management's perception of activities in the organization and the actual activities.

Establishing goal congruence is, according to Ouchi (1980), one of the main challenges in an organization. Plainly, it is about the difficulty to integrate different individuals and groups and to connect them to the overall aim of the organization. To accomplish this connection, reward systems are developed to identify, value and compensate individuals and groups striving to fulfill the overall aims (Reagans & McEvily 2003).

According to Argot and Greve (2007), the control system should, as far as possible, be tailored to bring congruence between aims on different levels, individuals, groups and within the organization itself. The possibility to reach congruence is, however, limited by, on the one hand, the overall organizational aim, and on the other, the compensation provided for individuals and groups fulfilling overall aims (Berry et al. 1995).

Perrow (1967) states that a strong and competent management can be well informed and interpret the signals from the organization. This competence ensures that management can maintain initiative and let the overall aim dominate the activities. In a complex situation where there are heavy workloads during the implementation of something new, management may lose their grip on former implementation efforts targeting a different system. Management's role can, in such a situation, change from proactive and preventive to reactive and losing control (Kellogg et al. 2006).

Search for improved efficiency and new care models

According to Krause (1996), the term “professional” describes a member of an occupation who has control over their work because of the intensive education and training needed for such an occupation. In medicine, members of the profession self-govern their own professional association, which ultimately gives them autonomy. However, Starr (1982, p. 39) predicted that “the last decades of the twentieth century are likely to be a time of diminishing resources and autonomy for many physicians.” This has opened the way for new care models based on imperatives other than those provided by medicine. Garman et al. (2006) argue that deductive reasoning, provided by physicians, is a key element in medical services and may have a negative impact on patient satisfaction when communication with the patients is modest. In contrast, inductive reasoning, provided by nurses, is a key element in care sciences and involves the patient in care planning.

Subsequently, new care models have been providing a new way of thinking and are slowly impacting on the health care industry. An example of a care model with an increasing impact on the health care industry is that of chronic care models that improve patient engagement and continuity (Bondenheimer et al. 2002; Pearson et al. 2005; Hroschikoski et al. 2006). Another example is case management, a care model started by mental health nurses as an integrative care to support the patient, not just in the hospital but also during the integration process into society (Mueser et al. 1998). A recent care model performed by nurses is telehealth and disease management (Darkins et al. 2008). In an evolving health care system, nurses treat patients suffering from chronic illness and mental disease at distance using telephones and computers in interactive systems (Coleman et al. 2009).

Other recent care models have been developed from the international classification of functioning disability and health (ICF) introduced as client-oriented care (WHO 2001; Rauch et al. 2009; Pless & Adolfsson 2011). The model was developed to customize care, strengthen the patient perspective and improve patient participation in the assessment of functioning and disabilities. In contrast to traditional care, ICF-based models primarily measure function instead of diagnoses and symptoms (Johansson 2013; Johansson 2014).

Since the 90s, care models such as patient-centered care and patient-centered medicine have been developed to meet patients’ needs. The core idea of such models is to “treat the patient as a unique individual” (Redman 2004). Laine and Davidoff (1996) explain the origins of the models as a response to the fact that medicine has been physician-centered, and physicians have now begun to incorporate the patient’s perspectives.

However, these models have been criticized because they are still performed from a traditional provider-centered, disease-focused framework that often results in care that is not congruent with patients’ preferences (Lutz & Bowers 2000; Pelzang 2010). Robinson et al. (2008) suggest that the models have been hampered by a lack of clear definition and methods.

Redman (2004) proposes that patient participation will be essential to handle future health care challenges. Corrigan (2001) explains the need for extensive reforms within health care systems to ensure the delivery of care required by the long-term ill.

The implemented gPCC and its intention

There is a challenge facing health care systems to meet the complex and costly care and treatment needs of the already large and growing population of persons with long term, non-communicable illnesses. Health services are envisioned in the future to develop a person-centered approach to care (WHO 2005). This means care tailored to the individual patient's needs, wants and values, is sensitive to the varying care needs of the individual. The care need to allow the patient to take charge of his/her health and where decision-making takes place in collaboration with patients. Implementation of gothenburg Person-Centered Care (gPCC) which was the model studied in this dissertation and the point of departure was that this new care model could contribute to an increase of quality in the health care setting. gPCC is one of several PCC-models characterized by certain ideas developed by a research team in Gothenburg.

In a paper by this research team, they described both their experience of implementing gPCC and also the key routines forming the main structure of the care (Ekman et al. 2011). They also described how they were anticipating that the staff at the medical department where the implementation was being performed would be sceptical to the merits of PCC. It was found instead that the major challenge was not in persuading them to practice PCC, but rather in convincing them that they were not practicing PCC - at least not consistently or systematically. They found that the staff felt it natural to relapse to disease-centred care - and hence implicitly placed the disease before the person.

Central to gPCC is the view that care is a collaborative process between patients and health care providers. As such, it involves defining clinical problems in terms that both the patients and providers understand, jointly developing care plans with goals, targets and implementation strategies, providing self-management training and support services and active, sustained follow up (Ekman et al. 2011). All humans are supposed to possess inner resources which could be a strength that can be activated also in health care situations (Olsson et al. 2007; Ekman et al. 2012). It is important, both for the individual and for society, to address people's strengths and capacities, and not solely focus on disabilities and functional declines. The gPCC is presented as a model that increases knowledge among caregivers about the awareness and the phenomenon of inner strength in general, and to inner strength among frail people in particular.

Gothenburg Person-Centered Care (gPCC) model is the model studied in this dissertation. Like patient-centered care, there is a lack of consensus about the core meaning of PCC in the literature (Morgan & Yoder 2011). However, the main differences between patient-centered care and person-centered care should be identified. The concept of the "person" is crucial in legal issues. A person is legally responsible for his/her own acts and behaviors. One may apply the concept of person to bestow upon an individual responsibility for a situation that concerns him or her (Leplege 2007). Therefore, it

has been suggested that patients are persons and they should not be reduced to their disease alone (Ekman et al. 2011). The new care models which results an improved efficiency, stems from the need for patients' demands to have a greater say in their care process. These newer models are in contrast to paternalistic traditions of the passive and grateful patient; patients are now seen as active and enlightened, taking responsibility for their own health (Ocloo & Fulop 2012).

Furthermore, the models appear in an era characterized by an increasing need for efficient inpatient periods followed by outpatient periods with continued treatment and therapy performed by municipal and primary health care staff (Aasa et al. 2013). Thus, this shows the need to construct methods with regard to inpatient health care.

Structure of traditional care and implemented care

Traditional care

For many centuries, both hospitals and poor houses were considered refuges and sanctuaries for the sick, poor and disabled (Gustafsson 1989). However, patients did not always receive good and professional care. Health care was often of a paternalistic structure, and this can still be seen today in the laws regulating health and social care in Sweden (Nordström 2000). Ågren (2003) emphasizes that health professionals carry on a tradition of paternalism - that is, the freedom and autonomy of patients is limited and health professionals themselves engage in behaviors of superiority. Health professionals were found to hinder both the continuity of care processes and moves to reduce the fragmentation of the care system. This behavior has been widely described in the patient versus care provider relationship (Schain 1980; Coulter & Jenkinson 2005; Munthe et al. 2012).

Hospital culture was based on assumptions that the staff know best, where staff typically make decisions on behalf of patients without involving them. Staff could even feel threatened if the patient disagreed with decisions made. Furthermore, paternalism was suggested as the main obstacle in establishing a meaningful partnership between staff and patients. It also hindered common goals, mutual respect and the prospect of achieving beneficial outcomes (Coulter 1999; Coulter & Jenkinson 2005). Furthermore, according to Elander and Hermeré (1989), paternalism led to a diminishing autonomy for hospitalized patients, especially in the areas of long-term care.

Implemented care model: gPCC

There is growing evidence that shows patients who are actively involved and receive regular follow-ups in a coordinated system report better health-related outcomes. A relevant study, the PCC-HF, was conducted focusing on patients with worsening heart failure to evaluate whether gPCC could improve health-related outcomes (Ekman et al. 2012). The reason for choosing patients with chronic heart failure (CHF) was because it was a common diagnosis, and the care of CHF patients is generally characterized as fragmented and confusing for the patients. Based on the findings of the PCC-HF project, a decision was made to implement gPCC for all patients in the department.

Theoretical framework

One tool often used to understand the different sides of implementation, from barriers to facilitators, is Ferlie and Shortell's (2001) four levels, where they identify the level at which interventions to improve the quality of health care might operate: (i) individual health professionals, (ii) health care teams, (iii) organizations, and (iv) the health care system (Ferlie & Shortell 2001). During this study, different theories were regarded as applicable to interventions at different levels. For example, theories of individual behavior are more relevant to interventions directed at individual health professionals or teams, whereas theories of organizational change may be more applicable to interventions directed at hospitals. Therefore, there is no single unified theory of change applicable in all circumstances. Theories that may operate within a health context include diffusion of innovation (Rogers 2010), institutional change (Tolbert & Zucker 1996; Hinings & Malholtra 2008), learning theories (Stein 1997), social cognitive theories (Wood & Bandura 1989), the theory of reasoned action (Sheppard, et al. 1988) and the normalization process theory (May & Finch 2009).

The diffusion of innovation theory gives an overview of the chain of processes including implementation. It is known to be broad and describes the different steps of implementation. Rogers (2010) identifies the necessary steps to ensure that an innovation will be totally diffused into a society or organization. Later research has scrutinized the different steps and found an important threshold within the different steps (Valente 1996). The model has four main elements: (i) innovation, which is described as "an idea, practice or a project that is perceived as new by an individual or other unit of adoption", (ii) communication channels, which are viewed as a process in which participants reach mutual understanding through sharing information, (iii) time and (iv) social system, which is a set of interrelated units active in problem solving to accomplish a common goal. According to the diffusion of innovation, the innovation decision process goes through five stages of adoption: knowledge, persuasion, decision, implementation and confirmation (Rogers 2010).

Furthermore, Rogers suggests that the rate of adopting an innovation depends on the characteristics of the adopters themselves. Adopters are categorized into five distinguished groups, and when the early majority adopt the implementation efforts, the implementation process reaches its "critical mass", which is the tipping point for sustaining the implementation.

The present study was conducted during the implementation period of innovation diffusion. The choice to do so was based on the fact that implementation is the operative phase; the very time when something new is introduced into a context. The definition of implementation varies depending on the theoretical view. Top-down theorists desire to measure success in terms of specific outcomes tied directly to the statutes that are the source of the specific model being implemented. Bottom-up theorists prefer a much broader evaluation - that is, a common acceptance of the model based on perceived "positive effects" (Matland 1995). One plausible and broad definition of implementation is as follows: reaching specific indicators of success, achieving general and local goals and improvement of the climate around the implemented model (Ingram & Schneider 1990).

Barriers and facilitators to implementation processes in health care

Barriers as well as facilitators have been identified during change processes in health care. Suurmond and Seeleman (2006) describe various barriers to implementing improved interactions between physicians and patients. They suggest four communication barriers: (i) physicians and patients may not share the same linguistic background, (ii) physicians and patients may not share similar values about health and illness, (iii) physicians and patients may not have similar role expectations, and (iv) physicians and patients may be affected by prejudice and speak to each other in biased manners. Therefore, the authors suggest that because of these barriers, the transfer of information, the formulation of diagnoses and the discussion of treatment options could be difficult and the active participation of patients could be hampered.

Hroschikoski et al. (2006) describe the implementation process of a chronic care model. The core idea of the model was to improve patient involvement and continuity. Even if the model underwent several shifts in strategy when initial efforts failed, many barriers and competing priorities were identified. A lack of specificity and agreement about the care process were key barriers, and little engagement from staff contributed to a mediocre result.

Holmes et al. (1996) describe factors influencing the implementation of shared decision-making in routine practices in private hospitals. They suggest that productivity and time pressure could severely constrain implementation. Furthermore, they state that reimbursement or monetary compensation should be provided to motivate professionals to bring a program into practice.

In a study exploring intention and control, staff proved to be more eager to control health care decisions than patients (McKeown et al. 2002). Patients did however want equal involvement in decisions about their care plans. It was suggested that evidence-based information regarding diagnoses and treatment options should be discussed with patients during consultations. There was however no suggestion how this could be achieved in practice (Ford et al. 2003).

Davis et al. (2003) explored how general practitioners in the UK manage the responsibilities of treating patients and making the most equitable use of National Health Service resources in the context of the policy of greater patient involvement in decision-making. General practitioners regarded patient involvement in positive terms, seeing that their involvement could be beneficial. It was also suggested that if patient involvement in health care decision-making is to be improved, then it is essential to consider the scarcity of resources, including time.

Kotter and Schlesinger (1979) state resistance to change as a major barrier to implementation. They go on to describe the more common reasons for such resistance: self-interest, misunderstanding of the change, having a different assessment, low tolerance to change and saving face. Staff with high levels of self-interest could resist change when they think they will lose something of value, such as power. This will often result in political behavior - that is, when the interests of one person or group are not those of the organization or other persons and groups. As a result, resistance could be

initiated by people who perceive a potential loss of power as an effect of change processes. They may perceive change as a violation of their everyday existence, routines and implicit agreement with the organization. A misunderstanding of the change was also reported as a common reason for change-resistant behavior. Staff resist change if they believe the cost will be greater than the gain. Another common reason is when people assess the situations differently from their managers or those initiating the change. Moreover, some groups and individuals have a low tolerance to change; that is, they resist change because they fear that they will not be able to acquire the new behavior or the skill required of them. Resistance to change can also stem from the opinion that implementing the change is an admission that past decisions or beliefs were wrong (Kotter & Schlesinger 1979).

Depending on the reasons for the resistance and the nature of the change itself, Kotter and Schlesinger (1979) suggest different facilitators for dealing with the situation: education, communication, participation, involvement, facilitation, support, negotiation, agreement, manipulation and explicit or implicit coercion.

The implementation of a new system in hospital settings is often associated with special challenges. Aij (2013) studied the implementation of a model aimed at improving patient health outcomes in teaching hospitals. The results show the value of management support, a continuous learning environment and cross-departmental cooperation. The implementation process was, however, a challenge because of the ambiguous and complex environment of a highly professionalized organization. The study emphasizes that leadership actions and training should be supplemented with actions to remove perceived barriers. This requires the involvement of all professionals, the crossing of departmental boundaries and a focus on meaning-making processes rather than simply “implementing” facts.

Solomons and Spross (2011) found that barriers occur in hospital settings at both individual and institutional levels. They studied the barriers and facilitators implementing evidence-based practice. The most common barriers were lack of time and lack of autonomy to change practices. They concluded that solutions to barriers need to be directed at the dimension where the barrier occurs, while recognizing multidimensional approaches are essential to the success of overcoming these barriers.

Vos et al. (2010) explain that time constraints and attitude - knowledge factors work against administrative support and education factors when implementing quality indicators in intensive care units. The study shows that the willingness to change among hospital staff was hindered by behavioral factors - that is, a negative attitude to the model implemented.

In a study by Morrow et al. (2012) the receptivity and complexity of implementation processes were measured in a group of senior hospital managers and healthcare practitioners in different hospitals in the UK. Stakeholders at different levels identified varying facilitators and challenges to implementation. Key issues for all stakeholders were a lack of staff time to work and present evidence of the impact on staff, patients

and ward environments. The authors emphasize the importance of generating evidence regarding the innovation, and specifically its clinical effectiveness.

In a case study of 12 organizational innovation and implementation projects in the Swedish health care system, Övretveit et al. (2012) identify a number of success factors. They show that successful innovations can be developed and progressed by operational level personnel, and that senior management does not have to “drive” management innovations. There is a need for clinical leaders who are devoted to develop and implement the innovation. Furthermore, implementers have to identify and address factors inside the organization and implementation success is more likely when there are a fewer number of professions or departments that have to change. The time demands of implementation on their own were not found to be a barrier to successful implementation.

To sum up, there is a broad range of factors that influence the implementation process in health care, including knowledge, interpretation of evidence, clinical situation, characteristics of patients, patient-preferred role, lack of agreement, challenging autonomy, patient outcomes, modifiability of the intervention, time pressure and resources.

RATIONALE FOR THE STUDY

The Swedish health care industry has been described as conservative, backward-looking and severely resistant to organizational changes (Bergman 1998; Axelsson 2002). Both the reduction in the number of hospital beds and the increasing number of patients with chronic diseases are placing stress on the system. Thus, this places the focus on the need for increased efficiency in health care processes. Consequently, new care models actualize the advent of broad implementation and the need to identify presumptive facilitators and barriers during the implementation processes. Although there have been previous studies on the implementation of new care models, few have dealt with the different perspectives involved in such processes. In this study I focus on the facilitators and barriers from three different perspectives. (1) The organizational culture - that is, the culture carried by broad staff groups in the hospital wards, and its effects on a new care model, (2) the management view of the implementation process and (3) the patient perspective of the impact of the implemented model. The choice of these three perspectives is based on the presumptions of cultural and management control having effects on the implementation as well as the actual impact on the patient.

There is also a further reason for this study. My closest point of reference is that of the health care industry in Saudi Arabia. There are similarities as well as differences between the Swedish and Saudi health systems. The main difference is that the Swedish hospital system has a long tradition, while it is relatively new, albeit developing rapidly, in my home country. As a result, it has been suggested that there will be a need in the future to implement new and more effective care models in Saudi Arabia (Qatari & Haran 1999; Almalki et al. 2011). Therefore, a personal aim in conducting this study was to obtain the skills to identify the barriers and facilitators that influence implementation processes, and these would enable me to perform similar studies in my home country, Saudi Arabia.

AIMS

Overall Aim

The main purpose of this thesis was to explore the barriers to and the facilitators for the implementation of a new health care model in a hospital setting. It was hoped this would be achieved by describing 1) the impact of organizational culture on the effects of a new care system and 2) the experience of managers and patients with the implementation of the new health care model.

Specific Aims

- To identify the impact of organizational culture on patient uncertainty, one of the desired outcomes of PCC.
- To explore the connection between culture dimensions and health outcome.
- To identify, from the management perspective, barriers and facilitators with respect to the implementation of PCC model in a Swedish public hospital.
- To investigate whether patients did in fact perceive the intentions of partnership in the new care model 1 year after its implementation

METHODS

Overall perspective of research methodology

This study used a multi-method approach with both qualitative and quantitative methods. Two papers were quantitative (Paper I and II) and two were qualitative (Paper III and IV) (Table 1).

Table 1. Overall study design and methods

Study	Participants	Method	Analysis
Paper I	220 Patients and 117 nurses	The organizational values questionnaire and the uncertainty cardiovascular population scale (UCPS)	The effect of organizational cultures on patient uncertainty was tested in a number of bivariate and multiple regressions.
Paper II	220 Patients and 117 nurses	The organizational values questionnaire and the EQ-5D	The effect of organizational cultures on patient health related quality of life was tested in a number of bivariate and multiple regressions.
Paper III	9 managers	Interviews	Deductive content analysis
Paper IV	16 Patients	Interviews	Deductive content analysis

Instruments

Organizational values questionnaire (Paper I and II)

From the basic definition of organizational culture in the competing values framework (CVF), Reino (2007) specifically developed an instrument for the healthcare context, the organizational values questionnaire (OVQ). Instruments based on the CVF have rarely been used in the health care industry. A few exceptions are two Swedish studies and Saame et al. (2011), who studied an Estonian hospital using the CVF framework and OVQ instrument. The OVQ measures the following cultural dimensions based on the CVF: Human Relation (HR), Open System (OS), Rational Goal (RG) and Internal Process (IP). It consists of 52 items with alternative Likert-type answers, ranging from “strongly disagree” to “strongly agree”. Averages were calculated for the total OVQ and for each subscale; a high score indicates strong disagreement.

Uncertainty cardiovascular population scale (Paper I)

The uncertainty cardiovascular population scale (UCPS), a disease-specific questionnaire, was used to measure uncertainty in illness, based on the original Mishel uncertainty in illness scale (MUIS). The UCPS consists of 16 items, covering the ambiguity (10 items) of the perceptions of a patient with heart disease about the severity of their

illness and the complexity (6 items) surrounding their treatment. Each item was answered on a 5-point Likert scale, ranging from “strongly agree” to “strongly disagree” (Hallberg & Erlandsson, 1990).

EQ-5D (Paper II)

The EQ-5D is a generic quality of life survey developed by the EuroQol Group and used widely by health economists and care scientists. Initially, the survey was only available in the UK, but over the past decade, several country-specific value sets, including Scandinavian countries, have been estimated and compiled by the EuroQol Group. EQ-5D includes five dimensions: mobility, self-care, usual activities, pain/discomfort and anxiety/depression. Each dimension is divided into three levels: no problem, moderate and severe problems (Burstrom et al. 2001).

Participants

Nurses

In Paper I and II, a total of 117 registered nurses (RN) (69% response rate) participated by answering the OVQ questionnaire; 89% were women and 11% were men, from four hospital wards. Staff participants (n=117) consisted of 73 RNs and 48 enrolled nurses. Their ages ranged from 23 to 63 years of age. Their average nursing experience was more than 11 years. Two reminders were sent out. Fifty-three RNs (31%) did not respond and two returned the envelope unanswered without explanation. A total of 15 items were not answered in the 117 returned questionnaires. All four wards were subject to the change process.

Managers

The whole department’s managerial groups (consisting of nine people) were invited to participate in the study and they all accepted. They were all clinically experienced physicians and registered nurses, four men and five women, with management experience ranging from two to fifteen years. All managers were still actively working as physicians/registered nurses in their wards to some degree, which is customary in most Swedish hospitals. A letter was sent out describing the background to the study. It contained detailed instructions and information stating that participation was voluntary. Participants were informed that they were free to withdraw at any time.

Semi-structured interviews were conducted by the first author during May and June 2012 at a location chosen by the respondents. The interviews were digitally recorded. The interviews lasted approximately 45 minutes each, and open-ended questions were asked regarding the implementation of the care model and possible factors affecting it. The interviews were transcribed verbatim. The respondents were pleased with the opportunity to discuss the implementation process and provided 54 pages of data. All respondents were given the opportunity to speak Swedish during the interview. As the interviewer was an English speaker, a professional simultaneous translator was present during the interviews if the respondents chose to speak Swedish. Two of the respondents preferred to speak Swedish using the translator during the interview. During the analysis process, two of the co-authors, fluent in both Swedish and English,

validated the translations independently. They listened to the recordings and they also compared the recordings and text looking for errors in the translation.

Patients

In Paper I and II, a group of 220 patients consecutively admitted to the five hospital wards in the study were included, and participated by answering the UCPS questionnaire. All of the sample patients suffered from a deteriorating condition of CHF. Patients with a life expectancy of less than three months, cases of heart disease requiring surgery or coronary angiography within three months, cognitive impairment or dementia, and those who were unwilling to participate were excluded. The patients' average age was 78.7 years and the average hospital stay was 7.6 days. All patients received oral and written information about the study and provided signed consent forms.

In Paper IV, 19 patients were selected from 2 wards in the medical clinic where the new care model were implemented. Inclusion criteria were patients with previous hospital experience who had been treated for at least 2 days in one of the selected wards. Exclusion criteria were those patients who did not want to participate, or were judged incapable of conducting interviews because of mental or physical illness.

The patients who met the criteria were given both written and oral information about the study and its purpose, and those who agreed to participate signed a consent form. The patients had a wide spectrum of internal medicine diagnoses and were between 22 and 91 years old (median 75 years, mean 67 years). Of the 19 patients approached, 2 declined to participate. The interviews were conducted during a 4-week period and each interview lasted between 15 minutes and 1 hour. The interviewer used a semi-structured interview guide with questions concerning the patients' experiences of their role in the care, how they generally viewed patient roles in health care, their relationship to the staff, if they perceived themselves as active or passive, how they perceived the information that they had been given during various stages of the care process and how different phases were tailored to their individual circumstances.

One interview was excluded when it turned out that the patient had been transferred from another ward where care planning and treatment had been completed. Because that person was not subject to the ward routines, the interview was considered inadequate for the study. Hence, the analysis in the study was based on 16 interviews

Analysis

Statistical analysis

In Paper I and II, the analysis stems mainly from descriptive data and regressions (bivariate and multiple). For the regression analysis in Paper II, the two main instruments, OVQ and EQ-5D, were converted into a 5-point scale by linear transformation as described by Dawes (2008). Means and standard deviations were used for descriptive purposes. Cronbach's alpha ranged from 0.86 to 0.93. Statistical significance was recognized at p -value <0.05 and all tests were two-tailed. Descriptive statistics were calculated in the form of counts and percentages.

Text analysis

In Paper III, a directed deductive content analysis was conducted (Hsieh & Shannon 2005) all authors discussed and agreed on how to conduct a deductive content analysis utilizing the Normalization Process Theory (NPT) (Hsieh & Shannon 2005). The analysis of the text began with reading all interviews to gain a wider understanding of the whole and to acquire a broad sense of meaning (Graneheim & Lundman 2004). Based on published work describing NPT (May & Finch 2009), a coding framework was developed that represents the core constructs and specific components of the theory. In the next step, all condensed meaning units were sorted into subthemes on the basis of the NPT theory by two of the authors. Data that could not be coded with NPT components were identified and analyzed later to determine if they represented a new category or a subcategory of an existing code.

In Paper IV, a directed deductive content analysis was conducted (Hsieh & Shannon 2005). The aim of the directed approach to content analysis was to investigate to what extent the new care model had been implemented from a patient perspective. This has been referred to as deductive category application (Mayring 2000). The categories were based on a study that described the key features of a new care model (Ekman et al. 2011). The key features became main themes in the analysis, and in which meaning units would be coded into. They are described and explained in the paper as initiating the partnership (patient narratives), working in partnership (shared decision making) and safeguarding the partnership (documenting the narrative).

Ethics

Articles I and II, all patients and staff received oral and written information about the study and provided signed consent forms. The Regional Ethical Review Board approved the study (2008-03-17; Dnr: 046-08) and the investigation conformed to the principles outlined in the Declaration of Helsinki (2008). Article III, no prior ethical approval was recommended by the regional ethical committee because management members were regarded as competent as long as they were given both oral and written information about the study. Article IV, The Ethics Committee in Gothenburg reviewed and approved the study (2011-10-04/T 825-11) and a permit was also obtained from the head of the clinic.

RESULTS

Paper I

It is assumed that organizational culture has an impact on the desired outcomes of PCC, such as reducing patient uncertainty. Therefore, a statistical analysis to identify the impact of organizational culture on patient uncertainty was conducted using OVQ & UCPS in the hospital wards during the implementation of PCC. The findings are described below.

OVQ

The 117 nurses ages ranged from 23-63 years ($M=38.9$, $SD=9.9$). Of the participants, 62% were registered nurses and 38% were enrolled nurses. The nurses' professional experience had a range of 37.5 years from 6 months to 38 years in service ($M=11.5$, $SD=10.2$). Their hours of duty were from 20 to 38 h per week ($M=35.2$, $SD=14.1$) and their average number of years working on the same hospital ward was 6.6 years with a range of 29.5 years ($SD=7.7$).

The dimension of Human Relations that uses cohesion, belongingness and trust was the main cultural character of the hospital wards, ($M=3.56$, $SD=0.61$) it was closely followed by Rational Goal (RG) ($M=3.19$, $SD=0.49$), Open Systems (OS) ($M=3.14$, $SD=0.55$) and Internal Processes ($M=2.97$, $SD=0.41$). This reveals that cultures of flexibility, cohesion, trust and belongingness were central among the healthcare professionals in the five studied wards. There was however a slight difference between the wards. Two wards (Wards 4 and 5) were characterized by HR, i.e. internal focus and cohesion. One ward (Ward 5) was slightly characterized by RG, i.e. planning, goal setting and focus on efficiency. The last two wards (2 and 3) had an almost equal mix of the four different cultures (Figure 1).

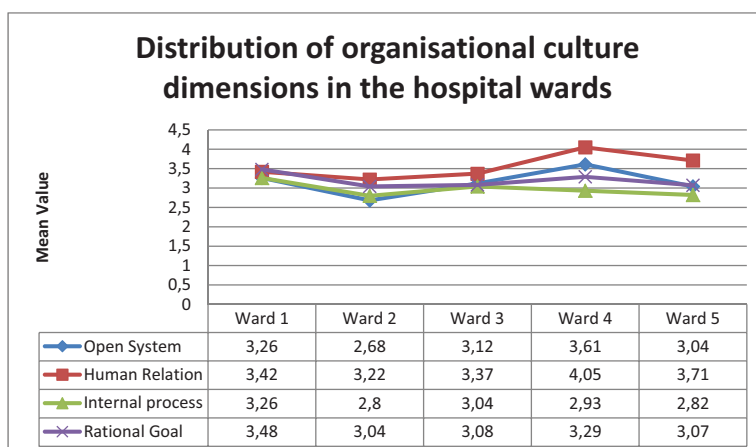


Figure 1. Mean values for the nurses answering the OVQ scale, divided in subscale.

UCPS

Uncertainty Cardiovascular Population Scale (UCPS) reflected the 220 patient's view of the tendency of healthcare professionals and organization to increase or decrease patient uncertainty. High scores indicate a low grade of uncertainty (except reversed item no. 3) and low scores the opposite; a high grade of uncertainty.

The item "I have heard many different opinions about what is wrong with me" generated the highest score, i.e. the lowest impact of uncertainty (M=3.74, SD=1.30) and was followed by "It is uncertain whether the treatment is effective" (M=3.66, SD=1.06), "Results of examinations and tests are contradictory" (M=3.62, SD=1.07) and "I have not received a clear diagnosis" (M=3.50, SD=1.48). Items generating a low score, i.e. a high level of uncertainty were "Since my condition is uncertain and may change, I cannot plan for the future" (M=2.66, SD=1.31), "I am not clear about what will happen to me" (M=2.81, SD=1.37) and "The medical treatment has an impact on what I can and cannot do" (M=2.84, SD 1.29) (Table 2).

Table 2. Mean values for the patients answering the UCPS scale

UCPS scale	Mean values
<i>Items:</i>	
I understand everything explained to me	2.25
Since my condition is uncertain and may change, I cannot plan for the future	2.66
I am not clear about what will happen to me	2.81
The medical treatment has an impact on what I can and cannot do	2.84
It is difficult to know if the treatment helps	2.96
My symptoms changes in an erratic and unpredictable way	2.99
My symptoms changes in an erratic and unpredictable way	2.99
Doctors say things that can be understood in different ways	3.05
There are so many categories of health care workers that it is unclear who is responsible	3.06
I get vague explanations about my condition	3.34
It is difficult to determine how long it will take before I can take care of myself	3.34
The treatment is too complicated for me to understand	3.49
I have not received a clear diagnosis	3.50
I am not sure if I can take care of myself when I leave the hospital	3.55
Results of examinations and tests are contradictory	3.62
It is uncertain whether the treatment is effective	3.66
I have heard many different opinions about what is wrong with me	3.74
All	3.18

Bivariate and multiple regressions

The covariation of HR, OS, RG and IP cultures on patient uncertainty was tested in a number of bivariate and multiple regressions. HR and OS, representing flexibility, cohesion and belongingness, were significant correlated to 10 of the 16 UCPS items

($p=0.00-0.05$). The R values were, however, remarkably low in these regressions. They were all from 0.00 to 0.04 and R2 was less than 0.01.

Table 3. Bivariate regressions representing an R value of 8% or more of the IF and RG dimensions and items from the UCPS scale

Bivariate regression	Pearsons R	R Square	F Value	T Value	Sign
Independent variables: IP, RG, OS and HR					
Dependent variables: UCPS items					
Independent variable: IP					
Dependent variables: UCPS items					
I understand everything explained to me	-0.15	0.08	0.15	2.20	0.02
There are so many categories of healthcare workers that it is unclear who is responsible	0.12	0.01	0.94	3.04	0.00
I am not sure if I can take care of myself when I leave the hospital	0.14	0.08	4.49	4.30	0.00
I have heard many different opinions about what is wrong with me	0.08	0.01	0.18	3.02	0.00
I am not clear about what will happen to me	0.14	0.01	1.18	2.92	0.00
It is difficult to determine how long it will take before I can take care of myself	0.13	0.01	2.77	3.71	0.00
I have not received a clear diagnosis	0.09	0.01	0.18	2.48	0.01
Independent variable: RG					
Dependent variables: UCPS items					
I understand everything explained to me	-0.10	0.01	0.15	1.96	0.05
There are so many categories of healthcare workers that it is unclear who is responsible	0.11	0.01	0.96	2.80	0.01
I am not sure if I can take care of myself when I leave the hospital	0.13	0.07	4.47	3.95	0.00
I have heard many different opinions about what is wrong with me	0.12	0.04	0.19	2.70	0.01
I am not clear about what will happen to me	0.15	0.04	1.16	2.68	0.01
It is difficult to determine how long it will take before I can take care of myself	0.15	0.02	2.83	3.47	0.00
I have not received a clear diagnosis	0.14	0.05	0.20	2.25	0.03
Independent variable: OS					
Dependent variables: UCPS items					
I understand everything explained to me	0.03	0.00	0.22	1.38	0.17
There are so many categories of healthcare workers that it is unclear who is responsible	0.01	0.01	0.00	2.23	0.03
I am not sure if I can take care of myself when I leave the hospital	0.01	0.00	0.00	2.21	0.03
I have heard many different opinions about what is wrong with me	0.04	0.00	0.36	2.06	0.04
I am not clear about what will happen to me	0.03	0.00	0.35	2.48	0.01
It is difficult to determine how long it will take before I can take care of myself	0.00	0.00	0.01	2.14	0.03
I have not received a clear diagnosis	0.03	0.00	0.17	1.66	0.19
Independent variable: HR					
Dependent variables: UCPS items					
I understand everything explained to me	0.00	0.00	1.01	0.43	0.67
There are so many categories of healthcare workers that it is unclear who is responsible	0.07	0.00	0.98	0.66	0.51
I am not sure if I can take care of myself when I leave the hospital	0.16	0.03	5.99	0.66	0.49
I have heard many different opinions about what is wrong with me	0.10	0.01	2.15	0.60	0.55
I am not clear about what will happen to me	0.06	0.00	0.88	0.52	0.60
It is difficult to determine how long it will take before I can take care of myself	0.13	0.02	3.52	0.28	0.78
I have not received a clear diagnosis	0.06	0.00	0.80	0.70	0.49

RG and IP, representing stability, control and goal setting were significant correlated to 12 of the 16 UCPS items ($p=0.00-0.05$). Seven of the items presented a low to moderate R value of 8% to 15% ($R=0.08-0.15$, $R^2=0.01-0.08$). RG and IP were associated with a reduction in patient uncertainty particularly in questions about the next step in care planning, difficulties in deciding when the patient could manage daily living and information about diagnosis. The reversed item “I understand everything explained to me” (1=totally agree) was negatively correlated to IP and RG (Table 3). This result may indicate that a culture of stability and control can improve communication between patient and staff.

In series of multiple regressions, the seven UCPS items from the bivariate regression were tested. The combination of IP and RG co-variated 14% ($R^2=0.02$) with the item “I’m not sure if I can take care of myself when I leave the hospital” and 12% ($R^2=0.02$) of the item “It is difficult to determine how long it will take before I can take care of myself”.

However IP and RG together did not co-variate more than 8% with the reduced uncertainty of the rest of the UCPS items. The variables displayed low t-values and were lacking significance in isolation. The reason could be that they co-variate or that they were present as an earlier link in connection to the cause. The HR and OS cultures in combination did not co-variate more than 5% with the items in the UCPS scale. The result may indicate that an IP and RG culture, i.e. a hospital ward with a dominant focus on stability, control and goal setting, can be associated with a low patient uncertainty especially regarding expected health improvement, discharge and daily living (Table 4).

Table 4. Multiple regression of the IF and RG cultures and UCPS items

Multiple regressions	$R = 0.14$ Biv. regr. Stand. beta	$R\text{-square} = 0.02$ Mult. regr. Stand. beta	Difference	T-value	Sign.
<i>Dependent variable, UCPS item: I am not sure if I can take care of myself when I leave the hospital</i>					
<i>Independent variables:</i>					
IP culture	0.06	0.28	-0.22	0.22	0.82
RG culture	0.14	0.42	-0.28	0.33	0.74
Multiple regressions	$R = 0.12$ Biv. regr. Stand. beta	$R\text{-square} = 0.02$ Mult. regr. Stand. beta	Difference	T-value	Sign.
<i>Dependent variable, UCPS item: It is difficult to determine how long it will take before I can take care of myself</i>					
<i>Independent variables:</i>					
IP culture	0.11	0.36	-0.25	0.28	0.78
RG culture	0.12	0.47	-0.35	0.36	0.71

Paper II

An assumption is that organizational culture has an impact on desired outcomes of PCC, such as patient quality-of-life. Therefore, in this study, statistical analysis to identify the impact of organizational culture on patient quality-of-life, using OVQ & EQ5D in the hospital wards during the implementation of PCC yielded the following; an organizational culture dimension of human relation (HR) dominated the studied hospital wards (M=7.12, SD=1.22). Rational goal (M=6.38, SD=0.98) was the second most dominating cultural dimension followed by open systems (M=6.28, SD=1.10). Internal processes (M=5.94, SD=0.82) had the least impact on the wards. Ward number one had an almost equal mix of the four different cultural dimensions. It was slightly dominated by RG, which is characterized by control, closely followed by HR which value flexibility. Ward number three was dominated by HR as well as ward number two and four that were quite similar in their distribution of characteristics (Figure 2).

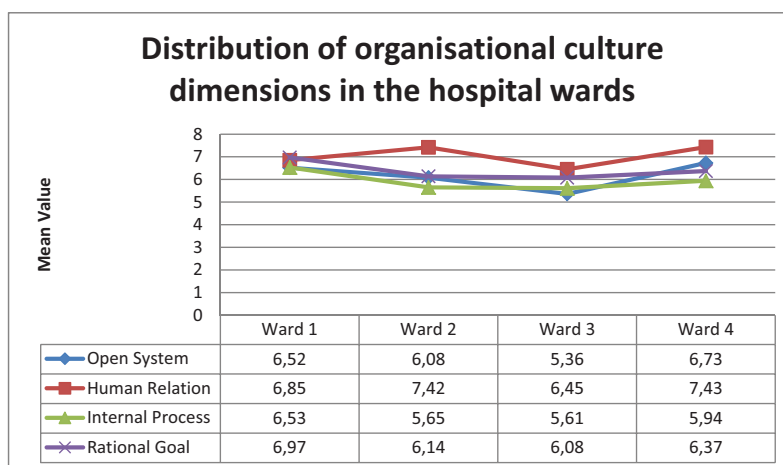


Figure 2. Distribution of organisational culture dimensions in the four hospital wards.

EQ-5D dimension of pain/discomfort was in average generating a moderate pain or discomfort (M=1.78, SD = 0.68) which was followed by the mobility dimension, in average some problems in walking (M=1.73, SD=0.78). The item of least impact was self-care. Most of the patients declared they didn't have any problems with self-care.

Bivariate and multiple regressions

The hospital ward cultural dimensions; HR, OS, RG and IP relation to quality of life, i.e., mobility, self-care, usual activities, pain/discomfort and anxiety/depression 3 months after discharge, was tested in a number of bivariate regressions. HR representing flexibility was significantly correlated to all the items (p=0.00-0.02). OS representing flexibility was significantly correlated to all the items except one, usual activities (p=0.00-0.05). However, all these regressions displayed R values below 10%, except the relation between HR and pain (R=0.21, R²=0.05) (Table 5).

Table 5. Bivariate regressions OVQ and EQ-5D

Bivariate regression					
<i>Independent variables: OS, HR, IP and RG</i>					
<i>(n=117)</i>					
<i>Dependent variables: EQ-5D (=220)</i>					
	pearsons R	R square	F value	T value	sign.
<i>Dependent variable, EQ-5D</i>					
<i>Mobility</i>					
OS	0.04	0.01	0.30	2.52	0.01
HR	0.10	0.01	1.77	3.65	0.00
IP	0.10	0.01	2.95	1.43	0.16
RG	0.10	0.01	1.94	1.10	0.27
<i>Dependent variable, EQ-5D Self-Care</i>					
OS	0.02	0.00	0.05	1.94	0.05
HR	0.07	0.01	0.90	2.60	0.01
IP	0.04	0.00	0.35	1.41	0.16
RG	0.04	0.00	0.28	1.22	0.22
<i>Dependent variable, EQ-5D Usual Activities</i>					
OS	0.01	0.00	0.03	1.74	0.08
HR	0.09	0.01	1.54	2.68	0.01
IP	0.08	0.01	1.30	0.65	0.52
RG	0.08	0.01	1.28	0.43	0.66
<i>Dependent variable, EQ-5D Pain Discomfort</i>					
OS	0.05	0.01	0.39	2.84	0.01
HR	0.21	0.05	8.99	4.71	0.00
IP	0.11	0.01	2.18	0.59	0.56
RG	0.10	0.01	2.06	0.37	0.71
<i>Dependent variable, EQ-5D Anxiety Depression</i>					
OS	0.07	0.01	0.81	2.92	0.00
HR	0.06	0.01	0.57	2.28	0.02
IP	0.00	0.00	0.00	1.82	0.07
RG	0.00	0.00	0.01	1.52	0.13

Neither RG nor IP did have enough impact on patient health care status to display significant results. This result tentatively indicates that hospital culture dimensions of HR and OS, i.e., flexibility can be associated with the patient health outcome three month after discharge.

In series of multiple regressions, the impact of HR and OS on the five EQ-5D variables from the bivariate regressions was tested. The regression displayed that 16% ($R^2=0.02$) of a decreased health status, 22% ($R^2=0.05$) of pain/discomfort and 13% ($R^2=0.02$) of mobility problems could be attributed to the combination of OS and HR in the hospital wards. The variables of self-care and anxiety/depression displayed R values below 10% (Table 6). All variables, except the HR impact on pain/discomfort and the OS impact on health status, displayed low t values and were lacking significance of their own. The reason could be that they co-variate or that they were present as an earlier link in connection to the cause. The result tentatively indicates that an

organizational culture dimension of HR and OS in the hospital ward moderately contribute to a decreased health related quality of life 3 months after discharge, especially in the pain/discomfort variable.

Table 6. Multiple regression of the OS and HR cultures and EQ-5D variables

Multiple regressions					
<i>Dependent variable EQ-5D (n=220)</i>					
<i>Independent variables: HR and OS (n=117)</i>					
	Biv.regr. Stand.Beta	Mult.regr. Stand. Beta	Difference	T-value	Sign.
<i>Dependent variable, EQ-5D Mobility</i>					
OS	0.04	<i>R=0.13</i> 0.09	<i>R2=0.02</i> -0.05	1.15	0.25
HR	0.10	0.13	-0.03	1.67	0.09
<i>Dependent variable, EQ-5D Self-Care</i>					
OS	0.02	<i>R=0.08</i> 0.05	<i>R2=0.01</i> -0.03	0.62	0.24
HR	0.07	0.09	-0.02	0.31	0.09
<i>Dependent variable, EQ-5D Usual Activities</i>					
OS	0.01	<i>R=0.10</i> 0.05	<i>R2=0.01</i> -0.03	0.65	0.51
HR	0.09	0.09	-0.00	0.31	0.16
<i>Dependent variable, EQ-5D Pain/Discomfort</i>					
OS	0.05	<i>R=0.22</i> 0.04	<i>R2=0.05</i> 0.01	0.56	0.56
HR	0.21	0.23	-0.02	2.98	0.00
<i>Dependent variable, EQ-5D Anxiety/Depression</i>					
OS	0.07	<i>R=0.07</i> 0.05	<i>R2=0.01</i> 0.02	0.66	0.51
HR	0.06	0.04	0.02	0.44	0.66
<i>Dependent variable, EQ-5D sum Health Status</i>					
OS	0.16	<i>R=0.16</i> 0.15	<i>R2=0.02</i> -0.04	2.22	0.02
HR	0.06	0.12	-0.06	1.72	0.08

The weak results encouraged me to compare them to other plausible reasons to a decreased health status. The R2s, as in the presented regressions, suggest that there are more factors acting on the data, and we need to keep looking for more causes. We did choose weight, vertigo and NYHA. These regressions displayed however surprisingly weak results. Vertigo displayed a decreased health status in all five EQ-5D dimensions from 17%-22% (R2=0.03–0.07). Weight displayed a decreased health status in the self-care dimension (17%, R2=0.03) and the NYHA classification did not display any significant results.

The results from Paper II indicate that organizational cultures which value flexibility were tentatively associated with a decrease in patient health-related quality of life. The results were, however significant, weak displaying low R² values. Furthermore, a culture which value control was not significantly associated with patient health related quality of life 3 months after discharge.

Paper III

A deductive content analysis utilizing NPT as an interpreting framework was conducted to identify barriers and facilitators from the management perspective to the implementation of a new care model yielded the following;

Coherence

Differentiation

The responders demonstrated a variation in understanding of the aim, objectives and expected benefits of the new care model. They were aware of factors which were perceived to facilitate or hinder the implementation process. They assumed that the new care model would have implication in areas such as organizational culture, distribution of power, responsibilities and patient characteristics. They were however unsure how to meet them.

The responders were aware of the necessity for all staff to know the difference between the new health care model and usual care and that it would be a time consuming process to achieve a complete change.

“The staff thought that they worked person centered before but then they start to realize that they actually don’t do that, it’s still a long way away” (Respondent 3)

Communal specification

The implementation process revealed problems the respondents were unaware of. Physicians focus on medical issues and nurses at care issues and they did not have routines to meet and discuss this. In the new care model this became obvious since it was part of the admission process for all patients.

“we have to meet together and talk, and plan, does this patient have to stay in the hospital or not and that’s what we have to discuss together” (Respondent 1)

They also saw a gap between educational activities and practice. It was suggested that educational activities were needed to be repeated. However, because the subject touched sensitive areas they thought it would be important how these educational activities were delivered.

“so you have to make them understand that they don’t work person centered care but in a very kind a very wise way, so you don’t offend them too much” (Respondent 6)

Individual specification

They were also concerned with the difficulties for the staff to change routines. They were worried this would trigger negative feelings among the staff which could promote resistance to change.

“if someone who is sitting behind a desk come up with a fantastic idea it still may not work in practice. I mean, we have been subjected to good and not so good ideas and that has made a lot of physicians very skeptical to new ideas”. (Respondent 5)

One respondent found it delicate to discuss the new way to view the patients with the staff. In the old care model, patients usually only was informed about the treatment and now, in the new care model, patients should be seen as a partners. This was re-

garded as a shift in power and at least for some physicians it would be difficult to get used to.

“It’s quite delicate to talk about the physicians not giving patients total participation in the care. So there is a lot to work on in that perspective. It may have something to do with tradition, the physicians knows best, and now we are changing the focus to the patient, that the patient knows best” (Respondent 8)

Some of the respondents were concerned with the strengthened position of the patient and the subsequent effect on the information-flow. They were concerned of the risk of being overwhelmed by it. The information regarded not only implementation of the new health care model but also other projects and the respondents found it necessary to weed out some of the information in order to avoid confusion.

Internalization

It was emphasized that the new care model would give an improved structure. In the new care model the admission process was different, compared to the old care model. Nurses and physicians worked more closely together in teams and the patients became important partners in order to develop a plan for the care. The respondents felt this kind of method gave a clear view of the efforts required from all staff and was an improvement. However, the new model required a major change in the way of thinking. On the other hand, one respondent felt unsure if they could take advantage of the new structured care. Many of their patients needed some sort of care effort from the community after discharge. The community could obstruct the discharge and thus nothing would be gained.

“We cannot decide what day the patient will leave the hospital because it’s not our, totally our decision because the community representatives has to give us their okay” (Respondent 5)

It was stressed that even though the benefits and the importance of the new care model was well known to the staff, a resistance to the implementation could still be expected. The respondent doubted that all staff was prepared to invest effort into the intervention. Some of the staff preferred working as the new model didn’t exist at all. They continued their daily work in a traditional and path dependent manner.

“it’s like eating healthy everybody knows that it’s important to do it and how to do it and you think you are rather good at it but you are not and you always go back to bad habits it’s difficult to change bad habits” (Respondent 3)

Cognitive participation

Initiation

The respondents were determined to build and sustain the new set of practices based on the new health care model. They were however aware of not just facilitators but also hinders to the implementation process. One of the respondents stated their determination in an unusually strong way.

“me, and the head nurse, we’ve both have to believe in it and we do, and we do work ourselves in the ward and see that it is implemented and it’s very very important because I will not allow anyone of the physicians to says it’s crap, I will not allow it, you have to work like that and the head nurse will not allow the nurses to say we will not work like that” (Respondent 7)

Enrolment

It was suggested that the implementation should be slow in order to be successful. There was a need to improve the internal communication to build a common ground of the philosophy behind the new health care model. The respondents were familiar with the everyday work in the wards and were concerned with the tension between the currently heavy workload and the implementation process. They knew that by applying a pressure upon the staff could contribute to action but later on, when the pressure was decreased there were a risk that the implementation process could stop or even regress to a stage of previous working routines.

“you have to keep burning the flame all the time, because it’s like a rubber band you have to keep the pressure if you let it go it will go back to the original shape” (Respondent 6)

Furthermore, they believed that there should be repeated reminders about the direction of implementation efforts preferably delivered as a bottom-up process. The managers were aware of the importance to avoid a top-down force is important because of the risk of clashing with the philosophy of the new care model itself.

“I think it’s very important that the nurses and physicians themselves are seen as persons in their work.....if you’re not seen as a person yourself it’s very difficult to see the patient as a person, if you think that you are like a part of the machinery, it’s very easy to see the patient in the same way” (Respondent 4)

Legitimation

The barriers to the implementation were believed to have its origin within the staff themselves, while patients were expected to favor the new care model. The ward culture could have an even stronger influence on the implementation. The respondents thought that when the ward culture promotes discussions and openness it could work as a facilitator to the implementation. However, some wards resisted change and one respondent perceived the nurses in those wards to possess an inappropriate amount of management control.

“they wanted to maintain the culture they had, the nurses in those two wards, in my view they were resisting, I don’t consider them nurses, I consider them mini doctors” (Respondent 4)

The respondents realized that in the previous care model the nurses had a similar instrumental perspective as the physicians and as an effect it would be just as difficult for them to change. Turning from old routines where biological signs and lab-results

were the all-embracing guidance, compared to invite patients to participate as partners was regarded as a major crossroad.

“we don’t really know which way would be the best way that would lead us to person centered care in the quickest way” (Respondent 6)

Activation

It was stressed that it was better to be leaning toward commitment rather than compliance in the implementation of the new health care model. In one ward, even though the staff embraced the new care model, they felt that they had not been invited to collaborate enough in developing new routines in the admission process. They went their own way and developed routines they were comfortable with.

“we had this research project with the new care model and the nurses did not like the forms they had to fill out, so they changed it” (Respondent 9)

Collective action (enacting work)

Interactional Workability

In their attempts to enact new set of practices, they were met with difficulties related to organizational efficiency. One of the respondents speculated that there could be a resistance to the new care model because it may increase the workloads.

“the truth is that the shorter times of stay in the hospital the more actually you have to do, if the patient stays for two weeks you only have one or twice a week, but if you have a new patient every other day you have a lot more to do.... sub-consciously maybe you think, oh we wait another day” (Respondent 3)

They were however, aware that increasing the length of stay were not for the best to the average patient. Even if patients seek help and usually never complained on the length of their hospital stay, they usually wanted to be able to go home as soon as possible.

“I think not all but most patients don’t want to stay at the hospital unnecessarily long, most of the rooms you share, someone is snoring and such things, and it’s not your own home, you do not want to stay there, you want to go home” (Respondent 8)

Paper III results shows that the theoretical model Normalization Process Theory (NPT), was partly represented by the data. The categories embodied the implementation process even if the later categories were missing in the data. The absence of major parts of the collective action dimension and reflexive monitoring suggests that the implementation process wasn’t completed and might regress to a stage of previous working routines.

Paper IV

Few studies have identified the potential effects of new care models from a patient perspective. The aim of study number four was to investigate whether patients did

in fact perceive the intentions of partnership in the new care model one year after its implementation. Sixteen informants were interviewed, selected from two wards in a medical department where a new care model had been implemented one year earlier.

A directed deductive content analysis was selected. The aim of the directed approach to content analysis was to investigate to what extent the new care model had been implemented, using patients' perspectives to measure the level of implementation. A coding framework was developed based on a theoretical paper that described the key features of the new care model.

Initiating the partnership: Narratives

Being listened to

Some of the respondents noticed how the health professionals were keen in knowing their personal situation beyond the boundaries of the hospital when being interviewed for the first time, even though at that stage they were unsure of the relevance of such information. Furthermore, respondents highlighted that even though hospitals environment and work routines were fast paced to deal with the overcrowding of patients and understaffing of hospitals, they experienced what they thought was an uncommon practice. This uncommon practice was in the form of giving the patient the time they themselves perceived to deserve and wanted. One respondent described such an interaction with a physician in a positive way, appreciating the time and effort they gave them, even though other doctors were not acting in the same way.

“she seemed to take her time and listen, and not everyone does and sometimes you actually feel”oops what’s the hurry”

“They’ve came in, kind of one on one or kind of talked and that I appreciated”

Furthermore, the respondents' noticed how the health professionals asked for comprehensive information about their situation at home before hospitalization. They focused on the respondents' ability and what available resources they had in order to manage their illness after discharge from the hospital. One respondent described their experience during the first interview with a nurse and indirectly highlighted her interest in knowing their situation at home.

“at the very beginning they go through everything that’s happened during the time I was at home, so they’ve checked that up as best they could”

Other respondents' were surprised of the health professionals focus on them as persons and not only the disease. Moreover, the respondents were surprised because they were assuming and accepting from previous experiences that health professionals were only interested in the disease, which was the reason for their hospitalization.

Consequently, respondents were engaged in discussions to know their illness better. For example, one respondent described health professionals shifted focus from the disease to the person by a two way communication which was not limited to the disease aspect.

“we have talked.... We talked about personal stuff. I have answered mine and they have... I have asked them and they have answered theirs...They are more interested in the person, in the personal stuff you know. Not just the disease”

Not being listened to

Not all patients were seen as partners, some described their experience of not being listened to in two manners, intellectually and physically. In one hand, not being listened to intellectually was when health professionals ignored what the patients had to say regarding their health care plan and treatment. More specifically, it was when health professionals talked among themselves about the current and future medical condition in the presence of the patient without talking to the patient him/herself. This experience made the patients to consider themselves invisible in that environment. On the other hand, not being listened to physically was when health professionals and the patients didn't communicate at the same level. More specifically, the doctor acted as an authoritarian figure and talk down to him. Furthermore, some patients described the dependence of medical technologies on the expense of the narrative. For example, when health professionals relied on data from a computer and rejected the patient complains about what they were experiencing.

“There's this disappointment you get when they don't believe you, when they took the blood gas, they said, but your blood counts look just fine...but why can't I breath !? So something is wrong. Well there's nothing wrong with you was the answer I got”

Furthermore, it was a common practice for health professionals to rely on computers to know the patient. The respondents noticed that health professionals used to gather then divide the workload and finally approached the patients with their equipment and started to measure and investigate without even talk to the patient. The patients noticed that their input was unwanted and some patients thought their story was unneeded. For example, one patient highlighted the extended dependence among health professionals on technology in an unusual matter.

“They just have to check the computer to get my whole life”

Working the partnership: Involvement

Being invited and involved

Some respondents felt invited to participate and their desire to manage their illness after discharge was obvious. Such desire appeared common among respondents' diagnosed with a chronic disease. To obtain this, the respondents' initiated discussions about their illness and requested to have both information and education from the health professionals in order to be able to manage the illness after discharge. As an example, one respondent was diagnosed with a chronic disease and needed to be careful with her diet. For her, this was a big change in life style and she was eager to find out everything she could about how to manage her illness.

“When I found out that my diabetes, that the values were high you know ... I've been very clear about that they should teach me before I go home. Now I'm going to see a dietitian tomorrow”

The feeling of being involved and get partial responsibility for their illness provided a further sense of security as well as a sense of control concerning the future. One person disclosed that he had received tools to help him manage the disease himself. Several respondents stated that they felt a responsibility for their own body and health and therefore felt that it was important to be as active as possible also during the care period. However, being informed did not necessarily mean to be involved.

Several persons were well aware of the purpose of examinations and treatments. They felt that they were well informed, which generated a sense of security, tranquility and a feeling of being well cared for. Sometimes this led to a tendency to passivity: they let the staff deal with the care while they just waited for the results. These persons did not express any notion of self-activity in the care process or participation in planning. Nor did they express any interest to do so or any feelings of having been left out. They accepted the information given and the planning presented. They perceived their role as a patient as passive and were comfortable with this. Several spoke of “orders” from physicians which they need to follow for results. They perceived without exception that carefully grasps the overall situation and that the staff is capable of solving a person’s problems in the best possible way.

“no they are working with this here now water and are going to try to remove it from my feet because it is so swollen (yes) that is what they’re doing [shows the IV] right, there you have that needle and that I drink and eat everything that’s right”

Not invited to be involved

Several patients did not feel invited to participate and commented that they had not got the opportunity to express themselves enough. Instead, focus had been on short questions concerning the disease. The lack of personal contact and the feeling of not being seen as an individual lead to weaknesses in the relationship to the staff as well as concerns about strictly medical issues. Questions arose about how well physicians can evaluate the effects of the medication if they were not aware of the person’s unique situation and characteristics.

In some cases concerns emerged as to what happens if a medicine does not work. Some persons harbored the feeling of being treated after a protocol of readymade prescriptions without any regard to the individual. Other respondents highlighted discharge decisions were made without their involvement and/or even knowledge. In such cases, when it was critical for some patients to be able to manage their illness after discharge, un-involvement of patients in the decision making process to assess their ability to manage the illness by themselves at home led to a worsening health status. As an example of this, one respondent described an experience from a previous care period where he underwent an orthopedic procedure and was not involved in the discharge process. Discharge decisions were made by the health professionals based on their assumption that the patient was ready to go home. As a result, when the patient did return home. However he didn’t manage the everyday life. The early discharge decision made him disappointed, he thought that the health professionals were wrong not consulting him.

“They thought I was fully treated so they thought I could cope on my own and at home when going to the bathroom in the morning I spun around and lay down on the floor and I screamed, there was no one who could hear me, so there I lay for 3 hours”

Contrary to some respondents who accepted health professionals complete control over their health care plan, other respondents felt unhappy about that. The physicians’ dominance diminished the respondents’ willingness to be involved and they became passive instead. For example, one respondent described how he felt that one of the medical consultants expected him to follow orders without any question.

“it’s the senior physician who decides it...well I have that, so that... it’s only to listen and take it”

However, some respondents’ highlighted that even though they themselves had not been invited to be involved in developing the health plan, but a family members had. They made it clear that they were not at all happy about health professionals’ actions which excluded them from participating in developing their own health plan. The following quotes are an example of two respondents who had this experience of being left out when health professionals discussed their case with a family member.

“They talked to the children and not with me...they thought that the children knew what I wanted”

“It’s me they should ask how I feel not just decide this and that, luckily I had a younger son with me who later brought this up. ”

Not being properly listened to also caused rifts in the relationship between patient and staff. There was one example of a person who did not perceive that she had been listened to and therefore did not feel that a health assessment by a physician was relevant to her. This person described an alternative explanatory model and did not trust the physician’s conclusions or ordinations. Furthermore, the person expressed hesitancy about continuing treatments and follow-ups, which of course might cause problems for the care process.

“Because you’re nonetheless in the hospital. You’re not in the hospital for fun, no, but because it’s serious. Absolutely, you may have better contact whit the other physicians in the clinic than you own allocated physician..... I think in that case there ought to be a little longer time to be present. ”

Not being invited but wanting to be involved

In some cases the respondents were completely left out by being uninformed about any decision made regarding their health. This was important for some participants because they thought that they couldn’t manage their illness if discharged early. These patients were concerned about their health status and wanted a long inpatient period until feeling confident in managing their illness after discharge. For example, one respondent experienced a high level of uncertainty because he was uninformed about his health care plan and he perceived being in the hospital for a longer period.

“so any discharge date hasn’t been planned for? A: no they haven’t done that you see, but now you don’t know, it could happen that they’ve done that I don’t know. But I do doubt it. Personally, I do think that I may be a few more days. I think but that I don’t know”

Not wanting to be involved

Although some respondents were not invited but wanted to participate, other respondents were unwilling to be involved in their health care. They had a perception that the doctor knew best and any involvement could undermine their treatment outcomes. Therefore, respondents described their relationship with health professionals as a vertical hierarchy in which the patient depended on professionals. In the following quote, one respondent described their hesitation to be involved. He attributed it to a perception about the supposed roles and responsibilities of health professionals and patients. As a result, the respondent restricted himself to be a passive person relying on health professionals.

“I kind of feel that I have to trust them. They know what medication I should take and what the plan should be like. I’m completely new at this whereas they are specialized in it, of course, so it becomes easy to rely on them”

Safeguarding the partnership: Documentation

Since the respondents were patients it could be hard to pick up on the staffs’ work of documenting. However, the health plan was supposed to be demonstrated and discussed with the patient. It appeared that at least a few respondents experienced this but it would be hard to verify without inspecting the health records. Several respondents had a good understanding of what was being done and planned. They had been able to absorb the information and had the opportunity to ask questions and reflect on their own specific situation. An understanding of the health plan ahead was important for feeling secure.

None of these persons were interested in exercising any influence in the purely medical realm but expressed a desire to influence and come with personal preferences whenever there was room. Their reasons were their own convenience as well as to maximize the possibilities of good results. Those who had objections or were totally opposed to a certain treatment or investigation were all appreciative of how this was handled. They expressed the feeling of having been taken seriously, having been met with factual arguments, and that they ultimately felt respected for their decisions not questioned or guilt imposed

“yes, with the help of their; I can’t do it if I don’t have the documentation, hence that they have provided me with the tools in order to enable me to do so ...”

“I’ll say that I think it’s important that the patients themselves are active, yes, and not just say yes and amen, I think that is really important. And there are, maybe, I think, modern young patients are like that too, whereas it’s easier for us who are older to comply with the authoritativeness, yes, and say “yes of course doctor” but I think young people like yourself are completely different, yes, and that is good.”

One respondent was explicit about the tools he needed were provided to him, by health professionals, in order to be involved in the health care plan. These tools were as simple as a pen, a few colored markers and papers. Furthermore, when health professionals discussed with the patient the illness and possible influencing factors, the patients responded by become motivated and to take on an active role in order to improve the outcomes of the health care plan.

“yes, with the help of them, I can't do it if I don't have the documentation, hence that they have provided me with the tools in order to enable me to do so...using different pens, different colors. Helps them, and they administer various tablet”

Some respondents noticed that the health plan were developed aiming to cover their requirements after the hospital stay. The health plan was meant to minimize or eliminate possible negative impact of their illness on their everyday life. A respondent was informed about a health plan which included a change in the medication type to make it easier to manage after discharge as well as an extended recovery period to avoid worsening his health condition.

“We switched to cortisone tablets from injections to make it easier for when I get home, I'm to go home...and tomorrow I'll get to see the physician and get everything prescribed and, well yet another week on sick leave to rest and eat, I haven't eaten very much. No, I've been on a drip.... I've received a good plan”

Paper IV results shows that two of the features, described in the new care model, initiating the partnership and working the partnership were richer in data than the last feature, safeguarding the partnership. The main finding in the present study was that obvious traces of the new care model were present in the data.

DISCUSSION

This study has revealed three key factors that potentially hinder or facilitate the introduction of new care models in hospital settings: cultural factors, time and involvement.

Cultural factors

As Paper I and II suggest, HR - that is, cohesion, belongingness, trust and flexibility - was the main cultural character in the hospital wards. Such characteristics have been identified as promoting willingness to change and therefore the path to success in implementation processes in the health care industry (Meterko et al. 2004). Westaway (2003) stresses that an organizational culture that values teamwork, belongingness and trust has been linked to a better quality of care compared with one that values stability and control. In contrast, a culture of control and prevailing routines has been found to sustain conservatism and has a tendency to encourage resistance to change (Carlström & Ekman 2012).

The findings from the first two papers within this project produced two largely unexpected results. The first was identifying a HR culture in the wards. This result was surprising because of Sweden's prevailing Beveridge-like health care system of public and non-profit health organizations with few competitive alternatives (Or 2010). Axelsson (2000) regards such systems - and especially Swedish public health care and hospitals - as a hierarchical and coherent monopoly. The reason for this is long-standing traditions, a lack of competition and a low risk of bankruptcy (Rainey et al. 1976). Strong cultures, such the one developed in Sweden, are based on repetitive routines and long-lasting traditions promoting inertia (Gustafsson 1989). In contrast, the prevailing culture in the wards in the present study shows a strong HR culture (trust, flexibility and belonging), with a willingness to change. This phenomenon has been confirmed in other studies on cultural settings in Swedish hospitals. Carlström and Olsson (2014) measured the cultural characteristics in orthopedic wards in two Swedish hospitals. They found HR to be dominant, followed by the stability and control cultures of RG and IP. A study of psychiatric wards in a Swedish hospital also found the HR culture to be dominant, followed by OS and IP (Johansson et al. 2013). Thus, the Swedish health care system seems to have lower levels of conservatism and organizational inertia than presumed.

The second surprise was the difficulty of implementing the new model despite the dominance of an HR culture. Willingness to change was expected to be important as an effect of the newly implemented care model, PCC. The correlation between some of the strongly predicted effects of PCC and the flexible cultural domination was surprisingly weak. Despite an expectation of decreased uncertainty in illness (Mishel 1990), as one of the desired outcomes of person-centered care, the culture of HR had a weak correlation to uncertainty in illness. Cultures of stability and control (RG and IP) were somewhat related to uncertainty in illness with a moderate influence. Furthermore, cultures that value stability and control did reduce uncertainty in illness.

Paper II confirmed the results of Paper I. More specifically there was a correlation between quality of life, also representing a predicted effect of the implementation of PCC, and the prevailing organizational cultures in the studied wards. Quality of life was divided into five dimensions: mobility, self-care, usual activities, pain/discomfort and anxiety/depression. The results, similar to the first study, show a weak correlation between quality of life and HR. The flexible culture of HR only provided a moderate contribution to a decreased health-related quality.

Although it has been suggested that organizational culture, which values flexibility, is a favorable environment in which to implement new health care models (Carlström & Ekman 2012), the results in this study do not support the claim. Such a characteristic does not appear to yield better health outcomes as intended by the implementation of PCC.

Although a culture characterized by flexibility may initially promote the first steps in the implementation of a new care model, other cultural characters are necessary to sustain such change in the long run. Such cultural characters can clash with flexibility, for example, control, routines and schedules. An initial willingness to change should then be replaced by good order, stability and routines. Subsequently, a combination of contrasting characteristics may support an implementation process by creating balance between change and stability. This explanation is supported by Quinn and Rohrbaugh (1983), who suggest that effective organizations often simultaneously present contradictory cultures. Organizations with mixed cultural profiles have been shown to sustain new treatments or service programs over periods twice as long as organizations with unfavorable cultures (Glisson et al. 2008). One plausible explanation could be that it is easy to introduce change (e.g., PCC) in a culture of HR, but more difficult to maintain the change without cultures of stability (Broström & Siverbo 2004; Kirchner et al. 2004). Further studies of the implementation process are required to explore this assumption.

The results indicate that an organizational culture of trust, cohesion, flexibility and a broad acceptance to run projects may decrease the unwillingness to give up old habits and encourage staff to try new different things. In contrast, even if the current understanding of organizational culture (dominated by flexibility) is considered favorable when implementing a new health care model, it could also hinder (rather than help) the new health care model in achieving its objectives in the long run. Therefore, it is essential to be aware of the organizational culture before attempting to implement a new healthcare model. The theoretical framework of implementation should preferably include a more thorough cultural analysis of the organization that has been practiced during the implementation of new care models in the health care industry.

Time

Another factor that could either hinder or facilitate the implementation of new models is time. Time factors are often mentioned as crucial when implementing something new into well-established and routinized organizations (Davies et al. 2003). Holmes-Rovner et al. (2000) suggest a lack of time as the most prominent factor to obstruct change. Time pressure can, on the one hand, constrain shared decision-making and

the implementation of something new; on the other hand it can force the birth of new thinking and creative ideas (Holmes-Rovner et al. 1996).

Time has proven to be considered differently in different parts of an organization. A stakeholder who is eager to implement a new model can regard time as insufficient, needing to account for the assumed effects of the new model. In contrast, the operating actors in an organization can wait for change-supportive factors to coincide with the search for the optimal time and situation to start something new (Nooteboom & Berger 1997). This fact explains why change agents typically feel impatient and eager to accomplish an effective implementation in a short period of time. In contrast, staff can be slow, ineffective and reluctant to implement something new (Nooteboom 1996). Övretveit (2012) shows that senior management do not always have to “drive” implementation processes; they could instead offer guidance and establish the appropriate conditions.

Management play a central role is this situation. Even if time is subjective, it can be considered and used as a tool and controlled by management (Bayley et al. 2012). Senior management tend to support a mechanistic view of implementation by supporting a sequential view instead of understanding the dynamic and evolving nature of implementation (Van de Ven 2007). If the leadership is decentralized and is not a top-down management governed by performance targets and regulations, then it is more likely that local health care staff will act in accordance with management during change processes (Greener & Powell 2008; Currie & Locket 2011).

Implementation theories do, however, typically lack time frameworks (Carlström 2013). Within the framework of change theories, the different steps during change are often well argued but how the time should be allocated is seldom mentioned (Rogers 2010). Although the time problem is often identified during a prolonged implementation process, most widely used frameworks do not account for the allocation of time (Pettigrew & Whipp 1991). Moulding et al. (1999) combined five widespread theories to make a broad and useful instrument tailored for implementation in health care. The model starts with stages of analysis of targets and the identification of potential barriers and facilitators. It ends with an implementation plan with continuous evaluation. Time is considered within the plan but no suggestions to the allocation of time are developed. Other well established models for implementation account for barriers, facilitators, professional practice, social context and organizational context but leave time factors undeveloped (Grol 1992; Oxman 1995; Grimshaw 2001). Instruments need to be developed that account for time as an alternating factor adjusted to the stage of the change process and the interaction of change agents and staff. In the present study, Paper III identified a difficult balance between saving time and consuming time.

A further related finding in Paper III was a prevailing time pressure due to the pressure from management to be productive. The pressure hindered the implementation process. Staff regarded actions to involve the patient in the care process as time consuming and unproductive, despite the fact that earlier studies have shown that such routines reduce the length of hospital stay (Olsson et al. 2006). This perception of time is evident in the interview with one of the ward managers. Time was presented as a restrictive factor rather than a resource that could be used in different ways. Such

perceptions can present time as a means to increase efficiency rather continuing to be productive in a repetitive manner. This is supported by Övretveit et al. (2012) in a study concerning two coordination innovations and two hospital process improvements in Sweden. It was shown in that study implementation processes cause little interruption to the everyday work of most employees.

It is assumed that if managers do not regard time as an investment to improve efficiency and reduce costs, then new care models will not be fully implemented. It will not matter if they are effective and timesaving in the long run, they will never gain the opportunity to prove their capacity. If initial time-consuming efforts are not seen as good investments, the implementation of a new model will be disregarded by staff and not prioritized. A theoretical framework considering time should consider a time allocation model distinguishing between initial time investments and eventual time gained. It should also show the perception of time among stakeholders and staff during the implementation project. These perceptions will probably differ among actors. However, the difference could lead to a realistic project plan.

Involvement

Several studies have focused on the need to involve patients in care processes. Authorities worldwide call for a greater role by patients in their own health care (WHO 2005). This concept has its origins in the widespread consumer movement of the 1960s, which affirmed the consumer's right to safety, the right to be informed, the right to choose, and the right to be heard (WHO 2005). It has also been connected to ideas from the New Public Management of consumerism, freedom to choose one's health care provider and market reforms (Pollitt & Bouckaert 2004).

The widespread concept of patient involvement also stems from the repudiation of paternalistic traditions within health care. Such paternalistic perceptions (where all decisions are made based entirely on the knowledge of experts and the patients are passive recipients of care) are no longer considered legitimate influences on the imperatives of health care philosophies (Emanuel & Emanuel 1992). Instead of outdated care models, new models have been introduced turning the patient from a passive spectator to an active key player (Kizer 2001).

Special involvement models have been developed to improve shared decision-making between physicians and patients (Makoul & Clayman 2006). However, such models often omit other health care professionals (Haywood et al. 2006). Involvement has been facilitated by network groups of nursing staff connecting different parts of the health service and guiding the patient from organization to organization (Attree et al. 2010).

Some studies concerning the implementation of new care models focus on staff perceptions and involvement rather than patient involvement. Attree et al. (2010) focus on the division between organizations and professions, and they recognize the value of experiential knowledge among specialists as a key factor in implementation processes in the health care sector. Furthermore, the concept of the inter-professional approach is often the focus when the aim is to involve the patient in implementing

patient-centered care (Légaré 2008). Even if the aim is to involve the patient, the professional team is often mentioned as the means of involving the patient, but the approach does not provide suggestions regarding how to ensure patient involvement (Weston 2001). Légaré (2008) describes how such integrative concepts often lack interventions to support patient involvement. One reason for this has been shown to be a lack of information. Patients are more likely to trust their capacity to make decisions when they are thoroughly informed (Henderson 2003). Another possible reason is that patients are not always qualified to analyze medical results (e.g., x-rays) and to determine the correct treatment (e.g., appropriate chemotherapy) (Thompson et al. 1993). A third reason could be that some patients do not wish to be an active and participative patient. Such patients prefer to be passive and delegate decision making to staff (Levinson et al. 2005).

The results from Paper IV show the influence of the new care model via the comments from the respondents. Several of them had noticed that their care was performed in a gPCC-manner. However, the results were often contradictory. Some patients were involved or considered themselves as included in a partnership, while others preferred to be passive and delegate decision making to the staff (Levinson et al. 2005). Furthermore, some felt excluded from participating in the care process.

One reason for these results could be character of the Swedish health care industry. Although Paper I and II revealed that flexibility had a surprisingly high level of influence in the hospital culture, the system is old and based on long-standing traditions. Several studies have revealed a high degree of inertia within Swedish health care organizations (Brorström & Siverbo 2004). Furthermore, the Swedish Beveridge-like system is largely public and non-market, and difficult to customize. It is inclined to rationalize, collectivize and standardize the service given (Axelsson 2000; Engström et al. 2002). This tendency is contradictory to efforts aimed at tailoring the care to obtain improved results (Crummer & Carter 1993).

There is a need to improve the theoretical framework regarding how to operate patient involvement, not just generally but in a context of long-standing traditions and in cultures within old and well-established public organizations. A care model such as PCC does consider ways to further integrate the patient into such organizations. gPCC contains concepts of “Initiating the partnership”, “Working in partnership” as well as “Safeguarding the partnership” by defining the key issues and shows the means to achieve such results. However, there is still a need to theorize how this can be accomplished when maintaining a status quo that reduces enthusiasm for change and allows automation to take precedence over inventiveness and creativity (Mahoney 2000).

One way to develop patient involvement could be to clearly define the roles of the patient and staff at the beginning of the relationship. An informed patient who understands their role is more able to act with initiative. One way to measure the success of patient involvement could be to record whether the patient asks questions instead of (as in the traditional model) the staff asking questions of the submissive patient. Another way to identify the success of patient involvement could be to record whether the patient identifies the resources rather than the staff, and furthermore, if the patient starts to take advantage of the resources rather than receiving them. An ultimate step

in such an involvement process would be when the patient designs the program rather than participating in a program designed for the patient.

Organizational culture, time and involvement

Organizational culture and time factors could fit within Rogers' (1980) diffusion of innovation theory. According to the diffusion of innovation, it is essential to reach a point of "critical mass". This point in the implementation seems to be the adoption of the innovation by the first three groups in the process of innovation diffusion. Consequently, it is reasonable to suggest that innovators, early adopters and the early majority belong to a culture that values flexibility. In contrast, the late majority and laggards appear to belong to a culture that values stability. Furthermore, the rate of adoptions described in the diffusion of innovation is further highlighted by the different perceptions of managers regarding the time required to reach full implementation. Taking these descriptions into account, an understanding of the influence of culture and time can be formed (Figure 3).

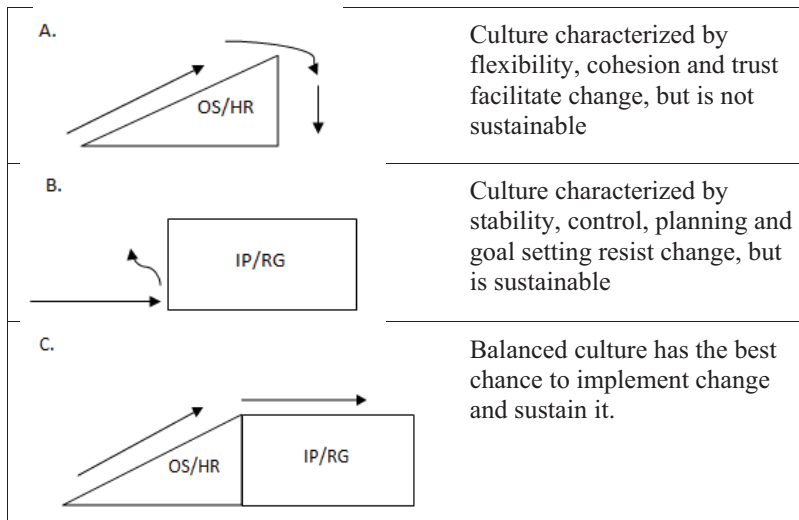


Figure 3. Influence of organizational culture on the implementation process.

We now return to the initial cultivating metaphor presented at the beginning of this dissertation. The farmer carefully considered the state of the soil before he decided to sow. He was aware of the potential investment, and if the soil was not rich enough to produce a bountiful harvest then he would either find another place to sow the grain or start to improve the richness of the soil. The farmer also knew that it would take some time before harvest, especially when implementing a new model of cultivating. If the harvest was accounted for too early there would be less gain because of the interest rate of return. The farmer was aware of the risk of no gain at all if the crops were not

properly cared for. This simple metaphor succinctly integrates the three key findings of the project: (1) the importance to measure and if necessary improve the organizational culture (i.e., the soil), (2) account for the time to implement the model (i.e., time to harvest) and (3) involve the actors (i.e., give the plants proper care).

The major contribution of this study is as follows. When a new care model (i.e., a new model of cultivating) is implemented, the organizational culture, time and actors' involvement should be considered. Furthermore, it is not just the possible barriers that should be noted, but also possible facilitators. The key findings are further explained below.

- a) It is essential to be aware of the organizational culture before attempting to implement a new healthcare model. The theoretical framework of implementation should preferably include a thorough cultural analysis of the organization's ability to change and achieve its objectives in the long run.
- b) If time is regarded as an investment in the implementation process, it will be an important tool to improve efficiency and reduce costs. A time allocation model that looks at both time investment and time gains as well as stakeholder and staff perceptions of time will contribute to a realistic plan for implementation.
- c) The level of success of the actors' involvement in the implementation of a new care model can be measured by their level of involvement in the design of the model rather than their participation in a model designed for them.

CONCLUSION

This study investigated the barriers and facilitators to the implementation of a new health care model at a Swedish hospital, utilizing qualitative and quantitative methods. Three factors were found to affect the implementations process: organizational culture, time and actors involvement. Interestingly, these factors were viewed as both barriers and facilitators, like two sides of the same coin. The first factor, organizational culture, is characterized by flexibility rather than stability. Flexibility within the organizational culture was viewed as a facilitator because it helps to induce the change process. However, flexibility was also found to be a barrier to the sustainability of the change. The second factor, time, was perceived very differently by managers. Some thought the implementation process would take two years while others thought it would take a generation. The new health care model activities were viewed as time consuming and time was considered a limited resource. However, staff did not understand the idea that investing time early on during a patient's hospital stay could save time in the future. The third factor, an actor's level of involvement, was perceived as a barrier or a facilitator depending on the understanding of roles and responsibilities. This highlights the need to have a clear-cut picture regarding the patient's role in the diagnosis and decision-making processes; the participants stated that these lines were typically blurred.

Taking these findings into consideration, it becomes clear that it is important to engage in the right action in the right place at the right time. For managers to do so, they need to be aware of the culture and perceptions of time among employees as well as patients' understanding of the intervention. Further research aimed at developing a theoretical framework that accounts for organizational culture and time could help to improve the chances for the successful implementation of a new health care model within different contexts.

THEORETICAL AND METHODOLOGICAL CONSIDERATIONS

The overall distribution of organizational culture dimensions in hospital wards presented in Paper I and II are different even though they came from the same data set. This difference is attributed to two actions: the linear transformations of the data in Paper I and II, and the merging of data from two wards in Paper II. Statistically, these actions had no impact on the regressions analysis because the ratio of the spread of the data is still the same.

A limitation of this study is that the data collection of this project was performed in just one hospital in Sweden. Cultures can shift between countries, within countries and within hospitals. Thus, further studies in different contexts are called for. Furthermore, EQ-5D is not considered a highly sensitive instrument to measure health-related quality of life, and it was used 3 months after discharge. The effects of culture would probably be stronger immediately after discharge. Furthermore, a period of 6 months to 1 year would probably make it difficult to detect the effect of culture because of the likelihood of the effect of other spurious factors during the months after discharge. If EQ-5D were measured at discharge, the results could have been different (e.g., stronger covariation).

Although the analysis of Paper I and II produced statistically significant results, they displayed weak R and R^2 values. This indicates a covariance of spurious and so far unknown factors. This emphasizes the need for further studies. The significance does, however, tentatively show a potential impact of culture on health outcomes.

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