9th NOVO symposium
"Quality in health care"

Society
Efficiency

Patient
Quality

NOVØ

Employee
Work environment

Abstract book

Trondheim
November 12-13 2015

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Overview

9th NOVO symposium
"Quality in health care"

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Preface

Welcome to Trondheim and to the 9th NOVO-symposium

The NOVO Network is a Nordic Society promoting research and development for increased organizational sustainability in healthcare. The vision is "a Nordic Model for sustainable systems in the healthcare sector". This core idea is illustrated by our "NOVO triangle" highlighting their mutual dependency. Thus, in the future, both research and development in health care would benefit of a much higher degree of integration of these three dimensions

This year, the 9th NOVO Network Symposium takes place at the Sør-Trøndelag University College, Department of Nursing Science. This department has developed a health promoting approach to all three dimensions in the NOVO triangle, efficiency, quality and work environment in health care services. This health promoted approach are also a part of the hospital organization for St. Olav's Hospital, which is a Health Promoting Hospital, we also welcome you all to a tour to the hospital.

The present 9th Symposium has received 26 excellent abstracts investigating key aspects of quality in health care, management, leadership, work environment and technical aspects related to these issues.

We are looking forward to discuss interesting research with fellow researchers and wish you a pleasant symposium!

Beate André
Chair of the 9th NOVO Symposium

Frode Heldal
Co-chair of the 9th NOVO Symposium

Novo steering group

Denmark:	Kasper Edwards, Chair
	Peter Hasle
Finland:	Marjukka Laine
	Thim Prætorius
Norway:	Beate Andre
	Frode Heldal
Iceland:	Sigrún Gunnarsdóttir, co-chair
	Helga Bragadottir
Sweden:	Ewa Wickström
	Lotta Dellve

Local committee

Beate André
Frode Heldal
Endre Sjøvold
Rolf Westgaard
Signe Valsø
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Scientific review

Beate Andre
Endre Sjøvold
Ewa Wickström
Frode Heldal
Helga Bragadóttir
Kasper Edwards
Lotta Dellve
Peter Hasle
Sigrún Gunnarsdóttir
Thim Prætorius
Timo Sinervo

9th NOVO symposium

Venue: Øya helsehus, Sør Trøndelag University College
Maurits Hansens gt 2, 7030 Trondheim

PROGRAM - 9th NOVO symposium

THURSDAY 12th NOVEMBER 2015

0900   **Registration, coffee**
1000   **Symposium opening**

1020   **Keynote speach** by Vigleik Jessen
          Head of Clinic Orthopaedy, Reumatology and dermatology, St.Olavs Hospital
          Fast track

1110   **Tour of the Mobility Centre, St.Olavs Hospital**

1315   **Lunch at Hotel St.Olav**

PROGRAM - 9th NOVO symposium

THURSDAY 12th NOVEMBER 2015 continued

1400   **Session 1**

Successful management and leadership for 21st Century health care services: Impelementation of New Public management, First line management, Leadership **Moderator: Endre Sjøvold**	
Jori Reijula	Management and facility design challenges in two Finnish university hospitals
Marcus Strömgren	The importance of leadership for workplace social capital among healthcare professionals
Sigrún Gunnarsdóttir	The value of servant leadership for sustainable health care services.
Andrea Eriksson	Experiences of implementing OHS driven intervention methods for sustainable leadership in health care
Jörgen Andreasson	The importance of nurse managers' preconditions and support resources for their attitude and work with improved quality of care

1515 **Break**

15:30 **Session 2**

Future challenges in health care: Elderly boom, telehealth **Moderator: Frode Heldal**	
Joseph Schultz	Learning from the leaders in eldercare: A Norwegian case study
Gørill Haugan	Perceived nurse-patient interaction affects long-term nursing home patients' anxiety, depression, meaning, hope and self-transcendence.
Jane Guinery	Eliciting a shared understanding of implemented change in primary care using a logframe approach

1630   **Stearing group meeting**

1800   **Walk to Kristiansten Fort. Meeting point: Comfort Park Hotel**

1900   **Dinner at Kristiansten Fort**
       Kristianstensbakken 30

PROGRAM - 9th NOVO symposium

FRIDAY 13th NOVEMBER 2015

0830 **Keynote speach** by Professor Fredrik Carlsen,
Dep. of Economics, University of Science and Technology NTNU
A patient-friendly and efficient healthcare

0930 **Session 3**

Positive factors in work environment and work health: Teamwork, communications, work health **Moderator: Rolf Westgaard**	
Special session: The Mielekäsprogramme 2013-2015 – Making the social and health sector more attractive **Tiina Koivisto**	
Beate André	Exploring nursing staff communication in stressful and non-stressful situations
Pernilla Lindskog	Can Lean promote a Good Working Environment? A quantitative study in the Swedish public sector
Regina Maciel	Work and health of health workers in Ceará
Helga Bragadóttir	Nurse job satisfaction, intent to leave, absenteeism, overtime and staffing: A comparison of seven countries

1050 **Break**

Visiting posters, all sessions

Arne Orvik	IManagement of a post-discharge programme of transitional care for elderly patients: From interorganizational collaboration to interorganizational health?
Mai-Stiina Lampinen	Sense of community at work among social and health care managers

PROGRAM - 9th NOVO symposium

FRIDAY 13th NOVEMBER 2015 continued

1100 **Session 4**

Organization for efficiency; Services in health care, VSM in health care **Moderator: Gørill Haugan**	
Anna Williamsson	Visual management in hospitals during organizational developments - benefits and contributions for working conditions and efficacy
Anders P Nielsen	The collaborative hospital: Observations from practice
Lotta Dellve	The impact of implementation of lean at hospitals for work conditions and health-related conditions among health care professionals: a three year follow-up
Timo Sinervo	Innovative care models in Finnish health centers, integration and smooth processes

1215 **Lunch at Hotel St.Olav**

1315 **Session 4 continued**

Organization for efficiency; Services in health care, VSM in health care **Moderator: Beate Andre**	
Jörgen Winkel	A Nordic work environment complement to Value Stream Mapping (VSM) for increased sustainability of patient flows at hospitals - The NOVO Multicentre Study I
Laurel Issen	Collaborative Learning: A theory driven approach to designing Health-care Improvement training
Kasper Edwards	A bottom-up approach to implementing change in a heart transplant center
Linda Åhlström	Implementation of lean and the 3-year-trends of sick-leave among health care workers in different hospital care context
Thim Prætorius	Bureaucracy friend or foe? - Organizing for social capital in hospitals

1500 **Symposium summing up**

1530 **Symposium end**

Keynotes

Vigleik Jessen
St. Olavs Hospital
Head of Clinic Orthopaedy, Reumatology and Dermatology

The clinic has implemented the
program Fast Track Surgery with
 great success, achieving the
award for best innovation in
Mid-Norway Health Care (Helse Midt-Norge)
in 2011.

Fredrik Carlsen
University of Science and technology
Professor at the Department of Economics.

His field of research is Public Economics,
Health Economics, and Regional Economics.

Abstracts

Session 1
Successful management and leadership for 21st Century health care services: Implementation of new Public management, First line management, leadership

Session 2
Future challenges in health care: Elderly boom, telehealth

Session 3
Positive factors in work environment and work health: Teamwork, communications, work health

Visiting posters

Session 4
Organization for effeiciency; Services in health care, VSM in health care

Management and facility design challenges in two Finnish University hospitals

Jori Reijula[1], Emmi Reijula[1,2], Leena Aalto[3], Virpi Ruohomäki[3], Marjaana Lahtinen[3], Kari Reijula[4]

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2)Kuopio University Hospital, Kuopio, Finland
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Presenting author Jori Reijula, jori.reijula@ttl.fi

Background
The declining economic situation in the developed countries has exerted pressure on hospital management and facility design to develop new innovations in order to improve their work process efficiency as well as staff and employee well-being. Two university hospitals in Finland; Kuopio University Hospital in Kuopio (KUH) and Turku University Hospital in Turku (TYKS) have undergone several major facility renovation projects during recent years. This has exacerbated their need to provide more efficient HC services. In addition, both hospitals have also begun implementation of Lean thinking.

Material and Methods
Both KUH and TYKS are a part of a research project aiming to utilize Lean in improving HC processes and work environment design and ultimately develop a concept and tools to enhance work process quality, efficiency, flow, safety and well-being in hospital environments. In this study, we conducted semi-structured interviews to the KUH and TYKS management and facility designers (n=14) to find out the challenges encountered with hospital management and facility design during their recent renovation and relocation projects.

Results
The interviews revealed that especially hospital hierarchy, bureaucracy, communication, IT, logistics, safety, teamwork, personnel structure, outsourcing, short-sighted facility design vision, continuously running processes, implementation of participatory design and a conservative approach to Lean have been notable challenges concerning project management and facility design. New hospitals should be aesthetic, adaptable and support work processes. The designers should interact with clinicians and possess enough HC expertize. Facility design projects should be led systematically and project communication should be transparent. Furthermore, an organized forum for HC is needed for sharing facility design knowledge.

Keywords:– Lean thinking, hospitals, healthcare, facility design, management

The importance of Leadership for workplace social capital among healthcare professionals

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2) Medical Management Centre, Department of Learning, Informatics, Management and Ethics, Karolinska Institutet, Stockholm, Sweden
3) Department of Caring Sciences, University of Borås, Borås, Sweden

Presenting author Marcus Strömgren, marcus.stromgren@ltv.se

Introduction

Social capital, operationalized as perceived trust, reciprocity and recognition has in earlier research shown to be important for employees´ job satisfaction and to health care staffs´ engagement in clinical improvements of patient safety and quality of care as well as job satisfaction, health and wellbeing. Since social capital has an impact, it is of interest to investigate which factors that influence workplace social capital. Research findings shows that leadership has great importance to staffs´ health and wellbeing, and affects a number of factors in the work environment factors as job satisfaction and work engagement. If and how leadership is associated with social capital is rarely described in previous research. However the few studies performed indicate that there are associated correlations between leadership and social capital, and leadership quality and social capital. Leadership within healthcare sector has been in focus when working with redesign of care processes and it would be of interest to investigate the role of leadership and the quality of leadership with respect to social capital. The aim was to assess the importance of leadership for workplace social capital in hospital settings.

Materials and methods

This study was a longitudinal cohort study. Questionnaires to physicians, nurses, assistant nurses at five Swedish midsize hospitals was used to collect data (T0, n=865, T1, n=908). Bivariate, multivariate analyses was used and a mixed model repeated measurement for the longitudinal analyses (n=477) were performed.

Results

Relationship between staffs perceived quality of leadership and staffs´ social capital was found (R = 0.58, p-value <0.0001). Results of the analysis showed significant differences in levels of social capital between the groups of low, medium and high levels in quality of leadership. The differences between the groups sustained over time where the group with high levels in quality of leadership remained higher in levels of social capital than the other groups. Same patterns of importance were also seen in the other groups.

Conclusion

Leadership qualities were related to-, had importance for- and influenced workplace social capital among health care staff.

The value of servant leadership for sustainable health care services.

Sigrún Gunnarsdóttir

Associate professor University of Iceland and University of Bifröst.

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The aim of this paper is to present a conceptual comparison of servant leadership and two evidence based models of health care leadership linked to positive staff and patients outcomes and to answer the question if servant leadership is an important contribution to current knowledge about successful leadership in health care.

A number of studies show the significance of supportive leadership behavior for better patient and staff outcomes. Servant leadership is an approach to leadership development and a practical philosophy applied widely in modern organizations. Publications are increasing indicating a positive link to staff job satisfaction, low levels of burnout and service quality. However, there is a need for further studies on servant leadership in health care.

Conceptual comparison was used to investigate the relationship between the philosophy of servant leadership and two successful health care leadership models, i.e. Magnet hospital and organizational empowerment according to Kanter's theory.

Findings indicate that these three leadership models are conceptually related from the point of view of 1) communication, 2) relationships within the organization, 3) decision making, 4) culture, 5) leader's competence and 6) vision. Servant leadership is a practical philosophy focused on the will to serve first and then lead by encouraging listening, autonomy, collaboration, trust, foresight and the ethical use of power. These characteristics are closely related to the principles of magnet hospitals where leaders are visible and supportive, staff autonomy is high, and communication channels are open. A conceptual link was also identified to organizational empowerment characterized by open access to information, resources and support, and opportunities to learn and develop.

These findings support the importance of further developing current leadership models by the contribution of servant leadership for sustainable health care services with focus on trust, partnership and supportive leadership. This may provide a valuable strategy in the context of challenging environment of current health care services and servant leadership may prove meaningful for sustainable Nordic health care services from the point of view of democratic values and supportive culture for the good of staff and patients.

Experiences of implementing OHS driven intervention methods for sustainable leadership in health care

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Presenting author Andrea Eriksson, andrea.eriksson@sth.kth.se

Introduction

Development processes in health care often narrowly focuses on more efficient work processes even though health care employees' report an increased strained working environment. Further-more, Occupational Health Services (OHS) in Sweden have been criticized for not contributing to improved organizational health and for not always having competence on leadership and health. In this context an ongoing research project has developed and implemented OHS-driven leadership interventions on sustainable leadership in health care. The interventions focused on supporting managers to integrate health promoting processes into ongoing quality developments at their workplaces.

Aim

To explore experiences of the implementation of g different kind of OHS-driven methods for sus-tainable leadership within health care. The aim includes analyzing key actors' and managers' experiences of the content and different forms of intervention methods, as well conditions important for a successful implementation.

Method

Researches developed in a first step a working material on sustainable leadership as well as five different intervention methods including web-based methods in collaboration with practitioners. Represents from OHS were given education on leading interventions based on the developed ma-terial. In a second step leadership interventions were implemented at 32 different workplaces with-in health and elderly care. Qualitative interviews with key actors and managers were performed for studying the implementation process. Latent and manifest content analysis was applied.

Results and Conclusions

A dedicated and functional collaboration between OHS and Human Resources, as well as with the researchers, was one important success factor for the implementation of the interventions. Sup-port from and collaboration between researchers and different strategic key actors within the participating health care organizations was further more critical for succeeding with the interventions. Web-based interventions required more engaged managers compared to interventions with physical meetings. In-depth results comparing the implementation of different interventions methods in the different organizational context will be presented at the conference.

The importance of nurse managers' preconditions and support resources for their attitude and work with improved quality of care

Jörgen Andreasson[1,2], Linda Åhlström[1], Andrea Eriksson[2], Lotta Dellve[1,2]

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Presenting author Jörgen Andreasson, jorgen.andreasson@hb.se

Introduction
Despite recent year's studies on nurse manager's organizational preconditions, and support resources, there is still lack of knowledge in how this kind of conditions affect the outcomes of work with quality improvements. Preconditions that earlier have been associated with managerial work are span of control (SPOC), managerial position, managerial experience and support resources. In this study we propose that the availability to organizational preconditions and support resources are associated with manager's appraisal to change, and the outcomes of quality improvement work.

Material and Methods
This is a prospective cohort study including 1st and 2nd line nurse managers at five Swedish hospitals. Questionnaire data were used with a three-year follow-up 2012 - 2014. The response rate was 60% (T1, n=246), 58% (T2, n=245) and 32% (T3, n=126). Paired sample students t-test and linear mixed models were used for longitudinal analysis.

Results
A higher SPOC (>30 employees) and longer managerial experience (>7 years) was associated with more positive appraisal to change. Also, managers receiving moderate to high support through the organizational structure, management-team, colleagues and employees rated in general more positive appraisal to change. Receiving moderate to high support from their employees and management team was also related to increased quality improvements compared to managers that received less support. Managers with higher SPOC (>30 employees) estimated decreased quality improvements in the follow-up.

Conclusions
Organizational preconditions, position, managerial experience and support resources have importance for managers' appraisal to change and impacts of quality improvement work

Learning from the leaders in eldercare: A Norwegian case study

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Background
Eldercare policies are being dramatically reshaped due to demographic shifts worldwide. The elderly are living longer and healthier, and their infrastructural impacts on society are well known amongst researchers. It is known that most countries will be experiencing unprecedented growths in their elder population, but what is less known is how these upcoming challenges are going to be resolved.

Aim
Our aim for this paper is to test existing eldercare theory on municipalities in Norway, a country recently ranked as a global leader in eldercare services. This empirical study will deepen the understanding as to how to best handle the upcoming, inevitable reality. The findings show that according to the leaders, it's most important to build a smart in-home living infrastructure.

Methods
The unit of analysis is the municipality. This research takes a qualitative approach in collecting the data. The grounded theory approach was utilized in analyzing the data.
Results. Every municipality interviewed has invested in smart-home technology to some extent. However, there little to no knowledge sharing of these technologies developed between municipalities outside of their established geographic networks, no municipality had formal innovation processes, had utilized eldercare theory, nor emphasized recruitment.

Conclusion
In concluding, it's clear that Norway's innovation strategy is to facilitate healthy aging for the elderly in their own homes as long as possible. Most developments have been in the form of smart in-home technology, which generally addresses the young-elderly needs. Accordingly, eldercare theory would urge Norwegian municipalities to strive for more balance in their eldercare system, inter alia, by developing innovation processes, improving recruitment (increasing working environment), or reshaping social responsibility (increasing societal efficiency). We have enumerated, in the conclusion, how Norwegian municipalities and other public organizations can learn from this study.

Keywords: eldercare, elderly, healthy aging, innovation, management, municipal, organizations, Scandinavia, strategy

Perceived nurse-patient interaction affects long-term nursing home patients' anxiety, depression, meaning, hope and self-transcendence.

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Aim
The aim of the present study was to assess nursing home patients' symptom burden, and to investigate the associations between quality-of-life (QoL: physical, emotional, functional, social and spiritual wellbeing), and hope, meaning, self-transcendence, anxiety, depression and perceived nurse-patient interaction.

Introduction
Spirituality has shown significant impact on QoL in nursing home patients. Likewise, as essential aspects of spirituality, meaning, hope and self-transcendence are found to be vital resources to nursing home patients' global wellbeing. Further, nurse-patient interaction has been seen to be a powerful influence on patient's thriving and wellbeing.

Material and Methods
In a cross-sectional design, a sample of 202 cognitively intact nursing-home patients in 44 different Norwegian nursing homes responded to the Herth Hope Index (hope), the Purpose-in-Life test (meaning-in-life), the Self-Transcendence Scale (self-transcendence), the Hospital Anxiety and Depression Scale (anxiety and depression), the Nurse-Patient Interaction Scale (nurse-patient interaction), and three different QoL questionnaires: the Functional Assessment Chronic Illness Therapy-General (FACT-G; physical, emotional, functional, social well-being), spiritual well-being (FACIT-SP-12) and the QLQ-C15-PAL (a core palliative care questionnaire assessing common symptoms such as pain, fatigue, dyspnea etc.). Descriptive and correlational analyses were carried out using PASW-18, and several hypotheses of relationships were tested by means of LISREL 8.8 and structural equation modeling (SEM).

Results
In sum, 19 different scholarly papers have been published based in these cross-sectional data, showing that:
1. Cognitively intact nursing home patients' symptom burden is high (56% fatigue, 49% pain, 43% obstipation, 41% dyspnea, 38% sleep disturbance, 25% appetite loss, 18% nausea/vomiting, 30% depression, 12% anxiety) and correlated with meaning-in-life.
2. Self-transcendence and meaning-in-life demonstrate significant effects on all dimensions of quality of life (physical, emotional, functional, social and spiritual QoL) (using SEM).
3. Nurse-patient interaction shows significant effects on patients' hope, meaning in life, self-transcendence, anxiety and depression (using SEM).

Conclusions
:Meaning, hope and self-transcendence are vital to patients' spiritual and global wellbeing. The associations found encourage the idea that meaning-in-life, self-transcendence and nurse-patient interaction are powerful health promoting factors that significantly influence on nursing-home patients' QoL. Therefore, pedagogical approaches for advancing caregivers' presence and confidence in health-promotion interaction should be upgraded and matured. Proper educational programs for developing interacting skills including assessing and supporting patients' meaning-in-life should be utilized and their effectiveness evaluated.

Eliciting a shared understanding of implemented change in primary care using a logframe approach

Jane Guinery, Penelope Siebert, Paul Windrum, Susan Brown, Sarah McDonald and Robert Smith.

Nottingham University Business School - Centre of Healthcare Innovation Leadership and Learning,

Presenting author Jane Guinery, jane.guinery@nottingham.ac.uk

Introduction
The UK Government responded to increased pressure on healthcare services by providing funding to introduce pilot initiatives aimed at improving and extending access to primary care. This study examines how stakeholders translated the call to implement change relevant to context, and this paper specifically reports on how and what was captured on this through the use of the logframe matrix approach.

Materials and methods
Logframe matrices have typically been employed to plan development programmes engaging all stakeholders. They capture consensus on overarching goals, aims, outcomes and activities, and the assumed relationships between them, revealing and challenging assumptions made. Here, they are used to retrospectively understand how pilots work. Data collection consisted of one or more group discussions with those involved (General Practices, Clinical Commissioning Groups and Service Providers) and the completion and validation of a logframe matrix document. Results In establishing the pilots it was found that much more has to be considered than simply improving and extending access as stipulated, as the interplay between efficiency, quality and work environment is very complex. The logframes revealed that stakeholders took this into account. For example, a key focus of the pilots was on mitigating supply driven demand by educating and redirecting patients to ensure resources addressed clinical rather than perceived patient needs. Additional demands placed on staff were recognised as negatively impacting on patients' perceptions of care, also resulting in stressed staff and difficulties with retention with knock on effects on access. Despite pressures, effort was put into managing the demand placed on practitioners to free-up time for longer consultations with patients with long-term complex conditions, as this was expected to result in reduced complications and need for secondary care.

Conclusions
The logframe approach revealed that many practitioners have a deep understanding of the multi-faceted nature of services and the demands placed on them. Findings indicate that stakeholder practitioners should always be given space, and tools such as the logframe, to translate policy into practice, as they have the tacit knowledge to understand and develop rationales around change, recognising impacts on the different elements of what is a complex system.

The Mielekäs programme 2013-2015 – Making the social and health sector more attractive

Tiina Koivisto Psychologist, Development of Work and Organization, Marjukka Laine Director, Leadership, Competence and Changing Organisations

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Mielekäs (Finnish for 'meaningful') is a nationwide ongoing action programme initiated by the Ministry of Social Affairs and Health in Finland and coordinated by the Finnish Institute of Occupational Health. It aims to increase the attractiveness of the social and health sector by actively searching for, finding and highlighting workplaces that have successfully created and developed practices increasing the attractiveness of work in the sector and the well-being of workers.

The project is directed towards employees, students, management and supervisors in social and health care. So far, 31 workplaces have been recognized for their efforts and successes in creating processes to increase the well-being and commitment of their staff. Workshops are organized in order to spread good practices to other workplaces and to create a forum where workplaces and educational institutes can share and develop good practices together and take advantage of the results of the programme.

We know that in an attractive workplace, open positions attract competent professionals, employees are content, service is good, and clients are satisfied. Current employees want to stay and they help in the recruitment of new, competent workers. Less is known about what has been done in practice and what could be replicated in other workplaces to achieve the same results. In order to fill this gap, a practice-oriented review of academic literature will focus on these aspects of intervention studies and other project reports, and a guide for workplaces will be published.

Exploring nursing staff communication in stressful and non-stressful situations

Beate André[1], RN, RMN, PhD, Sigrun A. Frigstad[1], RN, MsC, Torunn H. Nøst[2], RN, MsC, Endre Sjøvold[3], PhD.

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Aim
To explore the factors that characterize the work environment, focusing on communication among nurses in stressful and non-stressful situations.
Background Nursing is often described as a stressful occupation. Implementation of change may be an additional stress factor.

Methods
Nurses and assistant nurses completed a questionnaire from two different perspectives, "communication in non-stressful situations" and "communication under stress." The Systematizing Person-Group Relations method was used to gather and analyze the data.

Results
When the two perspectives, "communication in non-stressful situations" and "communication under stress" were compared, there were significant differences in 8 of the 12 factors. The stressful situations were characterized by low values in task orientation, caring, criticism, loyalty, acceptance, engagement and empathy; only the factor creativity had higher scores.

Conclusion
The stressful situations were characterized by creative and spontaneous behavior, not by task orientation and engagement, indicating a potential patient safety risk.
Implications for nurse management There is a need to help health care workers develop more mature analytical and task-oriented behaviors related to both independent work and collaboration in stressful situations. Nursing leadership and organization must focus on healthy work environments to promote engaged communication in stressful situations, ultimately increasing patient safety.

Can Lean promote a Good Working Environment? A quantitative study in the Swedish Public Sector

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2)Royal Institute of Technology, KTH, School of Industrial Engineering and Management, Sweden

Presenting author Pernilla Lindskog, pernilla.lindskog@sth.kth.se

Introduction

It has been argued that organizational process innovation is needed to a greater extent than before in the public sector due to struggles with quality and cost challenges. In this context lean production (Lean) has been implemented widely in the Swedish public sector for some years now. Even so, many attempts to implement Lean fail. Also, Lean has shown mixed results on the working environment. Hence, the implementation of Lean does not seem to be sustainable in all cases. Specifically, empirical research that tests aspects that enable Lean to contribute to or to hamper sustainable working conditions are still scant.

In order to find innovative ways of making the organization more efficient and effective one of the underlying principles of Lean are continuous improvements (CI). Lindskog et al. (2015) identified the following factors significantly promoting organizational process innovations in Swedish public organizations; participation in decision making, CI, resources, educational level and being a manager.

The purpose of this study was to test if these factors, that have been shown to promote organizational process innovations in the Swedish public sector, also further a good working environment, hence being important sustainability factors.

Material and methods

Five organizations working with Lean in the Swedish public sector (two university hospitals and three municipalities) participated in this longitudinal quantitative study (n=894). A web-based questionnaire was sent out to both employees and managers in 2011 (T1) and 2013 (T2) (response rate 65%/51%). Work Environment Satisfaction (outcome variable) was analyzed at T2 using a simple and multiple linear regression model in SPSS. The significant independent variables in Lindskog et al.'s (2015) study were used as independent variables in this analysis. The next step will be to analyze longitudinal differences concerning the analyzed factors affecting the sustainability of Lean.

Results

All factors that significantly affect organizational process innovation also individually significantly affect a good working environment except educational level (simple linear regression model). However, only resources and participation in decision making, which also mediates the effect of CI (on a 10% significance level) were the factors significantly affecting the working environment in the multiple regression model.

Conclusions

Participation in decision making and resources promote a good working environment and are important sustainability factors when implementing Lean in the Swedish public sector.
Longitudinal results are planned to be presented in November.

Work and health of health workers in Ceará

Regina Heloisa Maciel[1], Cynthia de Freitas Melo[1], Mateus Estevam Medeiros Costa[1]
João Bosco Feitosa dos Santos[2]

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Introduction

The Brazilian public health system was created in 1988. Since then the system has increased the access to health care mainly for the poor and employed many health professionals. However, the system suffers many drawbacks, such as lack of materials, lack of adequate space in the Basic Health Units (BHU) as well as in hospitals and organizational difficulties, among others. The system, as in other health systems configuration, is divided in three kinds of services: primary care (the "entrance door" to the system); secondary care (mainly laboratories and special treatment facilities); and tertiary care (hospitals). The tertiary care also includes an urgency service called SAMU (Serviço de Atendimento Móvel de Urgências – Mobile Urgency Service). The objective of the present study was to investigate work environment of professionals of SAMU in the city of Fortaleza.

Method

A quantitative research was applied on 247 health professionals, in which a scale for the assessment of the work environment and the consequences to their health was used.

Results

Results showed that the work environment is perceived as moderate to critical and that factors of work conditions are considered worse than organizational and psychosocial factors. Consequences to the professionals' health were also rated as moderate to critical. Technicians rated work conditions and consequences to health as being more deleterious by these than by other professionals. Sex, age and time in service also correlates positively to perceptions of poor work conditions. Conclusions: The study concluded that work environment in SAMU is not adequate and can lead to health problems of its professionals, showing the necessity to implement changes in order to improve work conditions.

Keywords: health urgency services, work conditions, workers' health.

Nurse job satisfaction, intent to leave, absenteeism, overtime and staffing: A comparison of seven countries

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Introduction

The shortage of nursing staff is a global problem. Little is known about the comparison of nursing job satisfaction, intention to leave, absenteeism, overtime, and perceptions of staffing adequacy across countries. The purpose of this study was to compare job satisfaction, intention to leave, absenteeism, overtime and staffing in seven countries and to examine their relationship to perceptions of staffing adequacy.

Material and methods

A cross-sectional study was conducted with the sample of 6212 registered nurses (RNs) who provided direct patient care in seven countries: Australia, Iceland, Italy, South Korea, Lebanon, Turkey and United States. A set of questionnaires about job satisfaction, intention to leave, overtime, absenteeism, and staffing were used. The return rates across seven countries varied from 31% to 81%.

Results

The levels of job satisfaction varied significantly across countries. RNs in Iceland reported the highest level of satisfaction. The rates of absenteeism, overtime, and intention to leave were significantly different across countries. Perceived staffing adequacy significantly predicted the rates of absenteeism, overtime, and intention leave. Number of patients cared for and staffing adequacy predicted the levels of satisfaction with current job and with teamwork while patient turnover was not a significant predictor for satisfaction.

Conclusions

A significant difference was identified between countries regarding job satisfaction, absenteeism, overtime and intent to leave. However, regardless of country and staff characteristics, staffing was identified as a significant contributor to absenteeism, overtime, intent to leave and job satisfaction. These findings point to staffing adequacy as a pivotal variable in job satisfaction and therefore nurse retention, quality patient care and safety in health care. In spite of high absenteeism and overtime, satisfaction with occupation and satisfaction with current position was highest in Icelandic nurses. It is questioned whether this can be explained by a stronger partnership-based health care in a more sustainable Nordic health care system, than is found in the comparing countries.

Management of a post-discharge programme of transitional care for elderly patients: From interorganizational collaboration to interorganizational health?

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Introduction
The mandate of health professionals and organizations is to provide high-quality and efficient care. However, because of fragmentation, integration is required. In this context, integration also refers to interprofessional and interorganizational collaboration to coordinate health services.

Material and method
In 2009, a trial with a post-discharge programme in an intermediate ward was initiated in a Norwegian community. The ward provided care for elderly patients in transition from hospital to municipal services. Two researchers interviewed twenty-eight participants involved in the project.

Results
Mutual support between managers and a constructive atmosphere in the project group and the steering group characterised the collaboration. However, the contacts between personnel at the ward and the hospital departments were characterised by conflict. Personnel at the departments felt that the project was a waste of resources, and suggested that colleagues at the ward were not competent to take care of joint patients. The result was annoyance and a hesitation to send patients. Personnel at the ward felt a strong resistance from colleagues at the hospital, and suggested that the colleagues wanted to punish them by not sending any patients at all. However, relations of trust were improving.

Positive and negative relations of collaboration means an oscillation between integration and disintegration. In this study, relations influenced quality and efficiency, but also the integrity of health professionals. Organizational health has been defined in terms of how an organization is able to cope with tensions of quality, efficiency and integrity, for the benefit of the organization as a whole. Organizational health also means an oscillation between integration and disintegration of these values (Orvik & Axelsson, 2012). Thus, collaboration and organizational health can be connected.

Conclusion
Interorganizational collaboration may be time consuming, and in this study, the atmosphere was improving. However, the ward was closed down by intraorganizational decisions based on efficiency considerations. With its focus on the benefit of the organization as a whole, a concept of organizational health can extend the basis of evaluating collaboration. To include the relations between and the benefits of different organizations involved, even a need of an interorganizational health concept can be suggested.

Sense of community at work among social and health care managers

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Introduction
The purpose of this study was to describe and analyze sense of community at work perceived by the front line managers and middle managers in social and health care services in Finland. The study was performed between 2013 and 2015.

Material and methods
In phase 1, a literature review of the PsycInfo, Sage Premier, EBSCOhost Academic Search Elite, PubMed, CINAHL and Arto databases was conducted aimed to describe sense of community at work. Inductive content analysis was used to analyze the data from 30 empirical research articles.

In phase 2, an empirical research was conducted aimed to identify how the factors associated with sense of community at work are connected with job satisfaction and wellbeing among the front line managers and middle managers in social and health care services in Finland. A questionnaire prepared for the study was sent to 241 front line mangers and middle managers. A total of 136 of managers completed and returned the electronic questionnaire (response rate was 56%). Data were analyzed by using descriptive statistics, exploratory factor analysis and multiple linear regression analysis

Results
The results of the literature review showed that sense of community at work consists of two main factors; the factors that explain sense of community at work and the consequences of sense of community. The explanatory factors of sense of community at work are individual, cooperation and interaction and cultural factors. The consequences of sense of community occur as commitment, job satisfaction and job wellbeing and job quality.
The empirical study in phase two showed that, alongside job meaningfulness, open communication and good flow of information within the organization, sense of security provided by close relationships at work, and managers' own superiors' appreciation of their leadership skills, all are related to managers' job satisfaction.

Conclusions
The study showed that the explanatory factors of sense of community at work are connected to job satisfaction and well-being of social and health-care managers. The findings of the study can be used in the development of leadership to support managers in coping at work.

Visual management in hospitals during organizational developments - benefits and contributions for working conditions and efficacy

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Introduction

Many hospitals choose to use certain tools related to lean, such as visual management (VM) during organizational development (OD) and daily processes. By using VM in the strategic planning process and depending on what is visualized in what stage of the planning process, different cognitive, social and emotional benefits may be gained. Research on VM in healthcare has so far concerned case studies of VM in surgical departments or during OD, and there is a lack of studies with rich empirical data. The aim of this paper was to explore VM use at hospital units undergoing OD; the main VM focus, and the benefits and perceived VM contributions concerning working conditions and efficacy.

Material and Methods

Photos of VM (120) at 16 units were taken during 2013-2015 and categorized by content analysis into VM focus and main content. A questionnaire concerning use of and perceived VM contributions in daily work (regarding; a) overview work, b) focus important information, c) detection of improvement opportunities) as well as working conditions, efficacy and quality of care was distributed to registered nurses and assistant nurses at five hospitals (21 units) at two occasions, 2013 (N=926) and 2014 (N=632). Comparative analysis' within and between higher and lower use units were conducted.

Results

Content analysis of the photos showed three main VM foci; results, flow and improvements. Five of the 21 units were considered to have higher VM and 16 units had lower. In comparative analysis, higher VM was associated with higher predictability and influence as well as with cognitive and social benefits of importance when participating in OD. Higher VM was also associated with higher degree of goal monitoring and evaluation, patient flow and efficacy in health care service.

Conclusions

Daily use of VM in hospitals undergoing OD had importance for employees' working conditions as well as perception of OD; overview of work, focus on results, detection of improvement opportunities and outcomes in terms of patient flow and efficacy.

The collaborative hospital: Observations from practice

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Introduction
To meet demands for high quality and efficient care, hospitals in-creasingly organize horizontally around standardized processes (like lean and care pathways) and/or set-up formal structural arrangements (such as using performance or lean boards, having daily team huddles or assigning specific roles to health care pro-fessionals). Interestingly, recent literature indicates that standardized processes and structures can foster and facilitate collaboration in organizations. However, the micro-mechanisms underlying the potential of standardization remain unclear. This research project investigates how standardized care processes and structural arrangements can facilitate and/or hamper collaboration in hospitals?

Methods
A qualitative multiple, embedded case study of four hospitals that relies on interviews, observation and archival data to get an in-depth understanding of col-laboration mechanisms in the collaborative hospital. The research is embedded be-cause three instances of standardized processes/structural arrangements are investigat-ed in relation to each individual hospital. Embedded cases are selected theoretically based on, e.g., department type (fast versus slow-re-sponse) and interdependence level. Only tentative observations from practice are presented as the research is still work in progress.

Findings
Structural arrangements: (s1) Performance management boards and white-boards. Represent instances of artifacts which bring health care professionals across professions together and allow them to coordinate and collaborate about solving the care tasks. (s2) Role structures. Assignment of specific roles to, for example, forming ward round teams of a physician and a nurse with shared responsibility for a group of patients. This improves coordination, reduces mutual waiting time and improves pa-tient contact. (s3) Simulation training of collaboration skills. Represent an instance of team competence development. This renders it possible to train inter-personal skills and learn about how each health care professional contributes to the whole care task. (s4) Formal meet-ing spaces such as having scheduled morning meetings where every-body gets an overview of the day, including who does why, when and where, or sched-uled team huddles during the day to update, coordinate and help each other. Standard-ized processes: (p1) Integrated care pathways which create collaboration across de-partments and professional specialties. (p2) Lean standard operating procedures which facilitate joint understanding of each other and foster collaborative interaction typically inside organizational units.

Conclusions
Observations of hospital instances of standardized processes and structural arrangements sug-gest that hospitals can use many different types of institu-tionalized dialogue to foster and maintain collaboration, thereby pointing towards mechanisms for developing the collaborative hospital.

The impact of implementation of lean at hospitals for work conditions and health-related conditions among health care professionals: a three year follow-up

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Introduction

The public sector has during the last decades been struggling with the challenge of how to increase the efficiency, the quality of performance, as well as with problems related to work environment and recruitments. Hospitals have struggled with increased focuses on costumer orientation, rationalizations and care processes redesign, and have often used Lean production (LP) as management model.

Aim to assess the long-term importance of implementing LP in hospitals for the psychosocial work conditions. Based on earlier research (e.g. Westgaard & Winkel, 2011), the following hypothesis were tested (1) Strategic large scale implementation of LP is associated with negative impact on mental health; (2) Implementation of LP is associated with weak negative impact on psychosocial work conditions; (3) The association between implementation of LP and psychosocial conditions is moderated by profession and participatory approaches.

Method

Five hospitals working with improvements of care processes were studied 2012-2014 using questionnaires to employees (T1 n=1303) and interviews at strategic and operative levels. Analyzes with mixed models repeated measures were performed. The explaining variables for the models were implementation of lean at strategic resp operative level, and time (T1, T2, T3). The outcome variables were work-related health (self-rated health, work ability, stress-symptoms) and psychosocial work conditions.

Results

Physical, cognitive and mental stress-related symptoms were only weakly associated with strategic or operative LP initiatives. There were no overall differences in self-rated health and work ability with regard to implementation of LP. A higher degree of LP at operative level was associated with decreased work demands. There were, especially initially, more beneficial or improved working conditions where there was higher degree of LP at operative levels. The long-term follow-up showed that quantitative demands increased and predictability as well as leadership decreased significantly more over time in the non-lean hospitals. There were different patterns with regard to profession and participatory approaches that will be presented.

Conclusions

This study contributes to the knowledge of when and how there are consequences for the work environment and work-related health among hospital employees from implementation of LP.

Innovative care models in Finnish health centers, integration and smooth processes

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Background
Ambulatory care has been developed actively in the municipal health centers in Finland in recent years. Especially access to doctors' appointment has been insufficient. Doctors have been dissatisfied with working conditions and in many health centers there has been shortage of doctors. Free choice of health centers has begun in 2014, which creates an element of competition between health centers, and especially increasing outsourcing of health centers.

Developing the care processes more effective has been a major challenge in health centers. Linked to this, care for the patients with chronic conditions and organizing them in a more planned and integrated way has been a major trend to increase patient-centeredness. This study attempts to find care models which combine efficacy, high care quality and worker well-being.

Methods
This study is a part of a larger Valint-project (Client centered primary care - patient choice and care integration). This paper is based on interviews of top management in health care and front line managers of health centres (N=41) and personnel of health centers (35) in 4 large and mid-size Finnish cities.

Results
The interviews showed that health centers had changed the care processes in several ways. In most cases role of nurses was emphasized and telephone services developed more effective. There were examples of nurse appointments where doctors consulted if needed. In two health centers there was one doctor in work shift working as a consultant of telephone service and ehealth. This helped nurses to make decisions in phone and made it possible to make drug descriptions in phone.

A promising solution of chronic care model was to profile patients to segments and organize care processes according to their needs. Two cities made this segmentation organizationally and provided integrated care for chronic patients with multiprofessional team work (GP's, nurses, physioherapists, psychiatric nurse, specialized doctors, social workers). Two municipalities used segmentation in care processes without organizational solutions.

Conclusions
The development in creating more patient-centered work processes have been able to make care processes smoother and to get rid of unnecessary appointments. For employees this has meant mostly better organized and more meaningful work.

A Nordic evaluation of a work environment complement to Value Stream Mapping for increased sustainability of patient flows at hospitals -
The NOVO Multicentre Study I

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Background

During recent years "Lean production" has become a prevalent rationalization methodology in healthcare. One commonly applied Lean tool is Value Stream Mapping (VSM). It is used to map the value stream in order to identify non-Value-Adding-Work (non-VAW) in e.g. patient flows. The process results in an Action Plan suggesting intervention proposals aiming at minimizing non-VAW in order to increase the proportion of value creation. Scientific evidence indicates that non-VAW represents periods of physical and mental recovery (e.g. Jonker et al., 2013; Palmerud et al., 2012). Reduction of non-VAW may therefore cause "work intensification" regarding physical and psychosocial exposures ("Work Environment"/WE). On this background the VSM tool has been complemented by an ergonomic module "Ergonomic Value Stream Mapping" (ErgoVSM) to be used in the healthcare sector (Jarebrant et al., 2010a, b). The aim of this first NOVO Multicentre Study was to evaluate the ErgoVSM tool. The general hypothesis was that prerequisites (in terms of estimated risk factors and performance) for higher organizational sustainability of patient flow are obtained by using ErgoVSM rather than the VSM tool.

Material and Methods

Fourteen hospital wards were investigated, six in Denmark (DK), two in Iceland (IS) and six in Sweden (SE). In each country half the wards used VSM according to their ordinary Lean routines and the other half the ErgoVSM. The ErgoVSM tool was based on the ordinary VSM procedure (Keyte and Locher, 2004) with added process steps guiding the users to also consider ergonomic implications of suggested proposals before they were included in the final Action Plan.
Initially, a baseline questionnaire was distributed at each ward to assess psychosocial and physical WE as well as management style (n=526). This was then followed by ordinary VSM or ErgoVSM workshops mapping the Current State, a Future State and development of an Action Plan. The first-line manager was then interviewed at the onset of the implementation period. At the end of the implementation period a follow-up questionnaire was distributed at each ward (n=526). Thereafter a Chronicle Workshop (Limborg and Hvenegaard 2011) was conducted to assess if other significant events had occurred in and around the ward. Finally, an additional interview with the first-line manager was conducted. All assessments were standardized by written instructions to be followed by the three national research teams. Interview guides were developed for both baseline and follow-up interviews with first-line managers. The Multicentre co-ordinator was engaged in part of the field work of all three national projects to ensure identical procedures across countries.

Analyses

The Action Plans were used as the final output of the VSM and ErgoVSM workshops and were then analysed in terms of immediate impact on efficiency, psychosocial exposure and physical exposure. In addition, it was assessed if the proposals would have an impact on Task, Job content or Work situation (modified from Westlander 1993). The assessments were performed by at least two researchers and followed a triangulation procedure based on researcher knowledge and notes, scientific evidence, 1st line manager interviews and ratings, as well as other available and relevant local sources. One researcher participated in all assessments in the three countries to ensure identical procedures.

The Chronicle Workshop events were analysed in terms of impact on WE and efficiency by a triangulation procedure as for the Action Plans.

Summary of Results

Action Plan results:

Of the 14 investigated hospital wards 12 fulfilled the process including implementation of a significant part of the proposals in the Action Plan. Two wards using VSM (one Swedish and one Icelandic) decided not to fulfill the process. The Swedish ward never produced an Action Plan while the Icelandic ward did, but the proposals were only partially implemented. Thus, 13 Action Plans were included in the analyses comprising 175 proposals.

- Of the 175 proposals included in the final Action Plans of the 13 wards, 105 were assessed as having positive impact on WE, 19 no impact and 8 negative impact. It was not possible to estimate a WE impact for 43 of the proposals. Among those proposals having a positive WE impact (N=105) 79% were at system level (job content and work situation). No significant difference could be shown between wards using ErgoVSM and VSM in this regard (p=0.3).
- The average number of proposals included in the Action Plan was 13 for the wards using ErgoVSM and 12 for the VSM wards (p=0.8).
- Among those wards using ErgoVSM 96% of the assessable proposals had a positive or no WE impact and for those wards using VSM it was 84% (p=0.4). No country effect could be shown.
- For Sweden and Iceland 83% of the ErgoVSM proposals were assessed as having positive impact on WE while only 37% for those using VSM. For the Danish wards the corresponding values were 54% and 52% respectively.
- Among those wards using ErgoVSM 88% of the assessable proposals had a positive impact on efficiency and for wards using VSM it was 95% (p=0.3). No country effect could be shown.
- In total, 55 proposals were not implemented out of which 23 were not-assessable. For the average ErgoVSM ward 5.1 proposals were not implemented and for the VSM wards 3.3 proposals. Of the 55 not-implemented proposals 26 were assessed as causing positive impact on both efficiency and WE if implemented. Only one of the 55 proposals was assessed as potentially causing negative impact on efficiency combined with a positive impact on WE
- Eight proposals were assessed to result in negative impact on efficiency. For 5 of these they were suggested due to positive impact on quality of care. The other three were not implemented; one due to employee resistance, one due to external factors (economy) and one due to poor function of new technology.

Chronicle Workshop results:

In total 443 events were recorded during the workshops among the 13 wards; for the average ErgoVSM ward 10.4 events were delivered per participant and 10.7 events for the VSM wards. Most events implied positive impact on both WE and efficiency. Events with negative impact on WE was reported 4.4 times per ward using ErgoVSM while only 1.8 times per ward using VSM (p=0.08). Further analyses of the events at country level showed that events implying negative impact on efficiency but positive impact on WE never occurred for any of the 5 investigated Swedish wards. However, this occurred in average 0.3 times per participant and ward for the 6 investigated Danish wards (p=0.05) and 0,2 times for the 2 investigated Icelandic wards (p=0.1). Some of the reported events were due to proposals from the Action Plans. For SE and IS 8 and 11% respectively could be derived from ErgoVSM/VSM Action Plan proposals while in Denmark 50% could be derived from ErgoVSM/VSM (SE+IS vs DK: p=0.002). Whether ErgoVSM and VSM had been used played no statistical significant role.

An analysis of the implementation ratio of the proposals according to the occurrence of events with negative impact on WE showed a strong negative correlation for the wards using ErgoVSM (R2=0.77) but no such correlation for the VSM wards (R2=0.001). Thus, for the 7 wards using ErgoVSM a low implementation rate was associated with many negative external events not related to the proposals in the Action Plan. Staff changes with negative impact on efficiency were reported 0.7 times per participant and ward for those using ErgoVSM while only 0.1 times for those using VSM (p=0.03). No differences between countries could be shown. In Sweden one of the two VSM wards reported 39 events and 26 of these were assessed to imply negative impact on WE. Ten of these could be derived from staff reductions and another 10 from introduction of new IT. None of the 26 events were derived from the Action Plan. Staff reductions seemed to result in work intensifications for the remaining staff and thereby potentially counteracting the positive effects of time savings obtained by implementing the proposals from the Action Plans.

Questionnaire data:

The Swedish wards using ErgoVSM showed at follow-up an improved psychosocial exposure compared to those using VSM (p=0.003) and a tendency towards improved 'quality of care' (p=0.06). The Icelandic ward using ErgoVSM showed an impaired psychosocial exposure compared to the ward using VSM (p=0.002). An impairment was also shown for the physical exposure (p<0.0001) and efficiency (p=0.004). These impairments may have been caused by documented contextual factors. No difference could be shown regarding quality of care (p=0.1). For all the Danish wards, both ErgoVSM and VSM and for all four variables (psychosocial WE, physical WE, efficiency and quality of care) no significant differences could be shown (0.5<p<0.9).

Conclusions
- Both the ErgoVSM and VSM tools seem mostly to result in intervention proposals causing improved or no change in the work environment without impaired performance.
- Based on Swedish data only the use of ErgoVSM may result in some improvement of the work environment compared with VSM. Such an effect is weakly supported by the Icelandic data and not by the Danish data. Thus, only under some conditions the ErgoVSM tool may be used in favour of the VSM tool.
- Most proposals were assessed to cause ergonomic improvements at system level ('job content' and 'work situation'). This is in contrast to intervention proposals investigated in the ergonomic intervention literature mainly focusing task level and the individual (cf. Westgaard and Winkel, 2011).

Collaborative Learning:
A Theory Driven Approach to Designing Healthcare Improvement Training

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Introduction
The challenge of translating evidence-based medicine into improvements in healthcare systems is a recognised global priority. The NIHR-funded Collaboration for Leadership in Applied Health Research and Care, Northwest London (NIHR CLAHRC NWL) takes a multi-faceted approach to addressing this imperative, including a theory-driven approach to delivering adult education. From 2008 to 2013, CLAHRC NWL delivered 20 quarterly learning events. Participants rated these as useful events, but we wanted to explore exactly what made them useful, and how this could relate to healthcare improvements. Previous work consolidated multi-disciplinary research on barriers and facilitators to evidence translation in healthcare into a single framework (the SHIFT-EBM) consisting of three strategic principles: Embrace Complexity, Act Scientifically and Pragmatically, and Engage and Empower (Reed et al., under review).

Methods
The six quarterly full-day training events from 2014-2015 used the SHIFT-EBM as a planning and evaluation framework. Participants submitted post-event feedback through a paper or online form. We conducted qualitative thematic analysis on free-text responses, both inductively and deductively using the SHIFT-EBM theoretical framework.

Results
Response rates totalled 60% of event attendees, n=351 surveys. All three SHIFT-EBM strategic principles emerged from deductive analysis. Participants represented various backgrounds including doctors, nurses, managers, allied health professionals, patients and service users. Inductive analysis revealed the following reasons participants found the event useful:
- Participants stated intentions to use specific methods, themes, and concepts they learned to improve healthcare systems, e.g. "Feeling empowered to challenge others on lip service improvements/ collaboration/involvement" "Will do a PDSA tomorrow"
- Headroom away from the daily grind, to find inspiration, motivation, and confidence to improve services, e.g. "Headroom away from busy acute trust" "Whetted my appetite for innovation"
- Ability to engage in peer-to-pear learning with a broad range of individuals from diverse professional and demographic backgrounds; ability to develop a greater understanding of how these individuals and their perspectives form a system of care.

Conclusion
The CLAHRC NWL programme successfully led a multi-disciplinary audience to engage with specific themes to improve healthcare systems. This lends support to research theories from adult education and improvement science, regarding methods and techniques to foster an environment for shared learning leading to healthcare improvement

A bottom-up approach to implementing change in a heart transplant center

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The recipe for successful organizational change goes something like this: Change is initiated by management, secure top level management support, establish a strong motivation for change (burning platform) etc.

This case is an example of change driven by employees and supported by management.

The heart center deliver a highly specialized diagnostics, care and surgery and conducts more than 1800 heart surgeries a year. The heart center was experiencing poor wellbeing at work and management believed that planning and performance of the operating rooms could be done more efficiently.

Management decided to initiate a project to counter these problems. A perceived lack of trust in the management meant that the project had to be based on transparency and high employee involvement.

The project had to both make significant changes and increase trust in management. For this reason management decided that the guiding principle of the project was to be: "We do what we say, and say what we do".

The project group observed daily operations at the operating ward and seven surgical procedures. Six group interviews with full surgical teams were conducted. All employees were asked to use the little black book to document issues that would prevent them from doing their job and 400 notes were recorded. This resulted in three themes.

The three themes became the subject of a two-day workshop for each theme. A full surgical team was present at the workshops and they developed solutions for each theme. The workshops developed 31 proposals for change. To makes sure the proposals reflected all employees they became the subject of three afternoon workshops for all employees.

A questionnaire with questions for the 31 proposals and relational coordination (Gittell, 2009) was distributed before and after implementation.

The follow-up showed significant changes in 14 of the proposals and relational coordination.

Keywords: Relational coordination, organizational change.

Implementation of lean and the 3-year-trends of sick-leave among health care workers in different hospital care context

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Introduction
 The implementation of Lean production in public hospitals has during the last decades increased to increase the flow of care processes and to decrease costs. However, there is a lack of knowledge of when and where this model of care process redesign works well in a sustainable way. The degrees of sick-leave have, in earlier studies, been associated to scale, degree and intensiveness of reorganizations as well as to the relevance of the reorganization.
Aim to assess the importance of implementing lean in hospitals for the developments of sick-leave in different hospital care context over time

Method
  Five hospitals working with improvements of care processes were studied over three years. The explaining variables for the models were implementation of lean at strategic resp operative level, and time. Outcome data was register-data of sick leave among health care workers each hospital and studied unit. Analyzes with mixed models repeated measures were performed.

Results
  The implementation of lean did, in general, not have stronger impact on the trends of sick leave. But there were different patterns of trends of sick-leave with regard to hospital care context. In hospital care contexts were there were a higher degree of patients in need of more acute care, the implementation of lean was associated with more favorable trends of sick-leave compared to units were there was a lower flow of patients in need of acute care.

Conclusions
This study contributes to the knowledge of when and how there are health-related consequences in terms of sick-leave among hospital employees from implementation of LP.

Bureaucracy friend or foe? - Organizing for social capital in hospitals

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Introduction
A strong criticism of bureaucracy in hospitals has emerged during the last years. It is related to standard procedures, quality control systems, patient safe-ty and performance management. The critique claims that professional judgement is getting jeopardized, limited resources are wasted, patient waiting time is extended and employee well-being reduced. But what is really the alterna-tive? There may be too many standard procedures, but just removing them is obviously not possi-ble. Our claim is that bureaucracy can positively influence organizational social capital if bu-reau-cracy is used in enabling and participatory ways and thereby improve professional treatment and care, patient safety and performance. This theoretical paper presents key points about how organizational design can promote organizational social capital. We focus on locally formalized structures as they influence how people interact and man-agers have the ability to change it. This knowledge is important to hospitals as social capital is associated with, for instance, organizational performance and employee wellbeing.

Theory
Organizational social capital is the collective resource that enables employ-ees to work together to solve organizational tasks.Trust, collaboration skills and fair-ness are three central aspects. Or-ganizational design concerns how the organization solves its tasks, and it is operationalized along the eight dimensions in the findings section.

Findings
(1) Enabling and participatory management and hierarchy structures. (2) Collective incentive structures. (3) Develop role structures with a focus on coordina-tion and transparency. (4) Team organization grouped by product (e.g., care pathways) and/or shared multidisciplinary tasks (the day's surgery). (5) Collective competences, focusing on team skills. (6) Institutionalized meetings such as short standing kaizen meetings or timeout meetings during the day. (7) Artifacts which facilitates multidis-ciplinary collaboration such as whiteboards, kaizen boards, monitors and bed-side rec-ords. (8) Integrated and interactive ICT such as intranet or electronic patient record sys-tems used for instance during kaizen meetings.

Conclusion
Bureaucracy stands out as a foe of professionalism and employee well-being but it needs not be the case. On the contrary, in order to build and use the re-sources in organizational social capital a certain level of standardized structures and processes is necessary. The decisive point is that the bureaucracy is enabling and par-ticipatory.

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GENERAL INFORMATION

City map
(directions in blue)

Conference venue:

Sør-Trøndelag University College,
Øya helsehus, meeting room Blåhø A2-3, 1st floor

Mauritz Hansens gt 2
7030 Trondheim, Norway

(Use the elevator or stairs, one level up from entrance. Se picture of entrance at page 6.)

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