Proceedings

The 14th NOVO-Symposium

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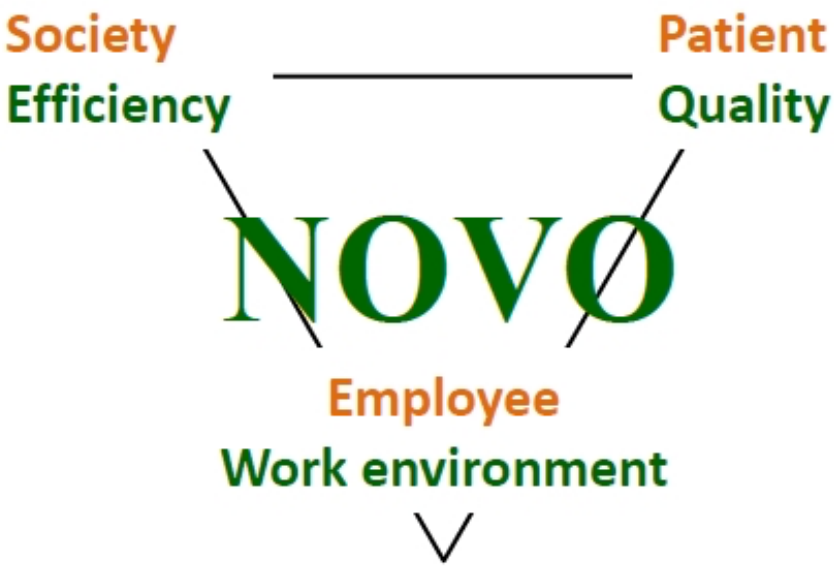
Healthy healthcare – What do they do and how can we get more?"

NTNU, Trondheim, 7-8 December 2023



Edited by Kasper Edwards

Proceedings
2023

Published by: DTU, Department of Technology, Management and Economics, Akademivej, Building 358, 1st floor, 2800 Kgs. Lyngby Denmark
www.man.dtu.dk

Preface

The NOVO-Network started more than 17 years ago, and the core idea of the NOVO is to integrate perspectives of work environment, efficiency and quality of care (the NOVO-triangle) - to support sustainable health care systems.

Our health care systems are dynamic and ever changing trying to satisfy increasing demands for services while meeting economic constraints. New treatments are developed as well as new care paths are moving elements of care and treatment from hospital to municipality. Another major development is value-based health care where the patients' value perception is sought integrated in the planning (and funding) of care and treatment.

Tools and methods from operations management are no longer an exception but used on a regular basis to increase productivity. These and other development have implications for employees, patients and society. With the increasingly shortage of professional staff and high absenteeism in health care, it is increasingly important to consider integrate the perspectives of efficiency and quality of performance with the development of beneficial working conditions.

For this symposium we have organized the abstract in 5 themes:

- Cross sector and primary healthcare
- Municipal healthcare
- Nursing
- Workflow
- Leadership

We further have a special workshop organized by Andrea Eriksson on the development of key components of Leadership program for Recovery of health care employees.

The NOVO-symposium brings together researchers from different fields to discuss our common interest in health care. This multi disciplinarity and our similar yet different health care systems in the Nordic countries are a core strength of the NOVO-network and a great source of inspiration for our discussions.

We hope you will enjoy the Symposium in Trondheim and discover new ideas and colleagues!

Kasper Edwards

The NOVO Steering group

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DTU Management, Technical University of Denmark

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SDU Engineering Operations Management

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Department of Technology Management and Economics, Chalmers University of Technology

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Sustainable work and inter professional collaboration in healthcare

Venue: Room U36, NTNU Business school, Klæbuveien 72, 7030 Trondheim, Norway

Thursday 7th December 2023

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10:10 Keynote:

- Professor Endre Sjövold, NTNU
  "The Soft Part is the Hard part" Healtcare Leadership - the key to success

11.00 Break

11:15 Session 1: Cross sector and primary healthcare

- Kari Anne Holte: Care across system boundaries – preliminary results from a cross-sector chronic wound management model intervention
- Ann Salling Hejlesen: "Continuous Improvement at a Public Hospital Biochemistry Department: Maturity, Barriers, and Drivers"
- Visa Väisänen: The role of telehealth in increasing the availability and accessibility of Finnish primary care: Analysis of register data from 2017 and 2022

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- Olaug Øygarden: Reorganizing municipal home-based healthcare services: Innovation barriers and their interrelations
- Kasper Edwards: The tempoaray stay in danish municipal health care.
- Rebecca Gantriis: Reformation of Scandinavian healthcare systems and novel models for municipal healthcare delivery

14.00 Coffee

14.15 Session 3: Workshop on the development of key components of Leadership program for Recovery of health care employees, Andrea Eriksson et al.

16.00 Closing the day

18:00 Visit at: Kjøpmannsgata Ung Kunst, Kjøpmannsgata 38, 7011 Trondheim

19:00 Dinner at Gubalari, Kjøpmannsgata 38, 7011 Trondheim

Friday 8th December 2023

9.00 Session 4: Nursing

- Majken Epstein: Managing sustainable working hours within participatory working time scheduling for nurses and assistant nurses: A qualitative interview study with managers and staffing assistants
- Sigrún Gunnarsdóttir: "It is the professionalism and the morale, - you just feel good at the unit."" Nurses´ experience of successful work environment at university hospital cardiac unit"
- Timo Sinervo: The determinants of and ways to mitigate medical deserts at organizational level

10.00 Coffee

10.15 Session 5: Workflow

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- Philip Åhlin: Swift and even hospital-wide patient flows: Operationalization
- Sarah King: Tackling ED stress, burnout and improving workflow in the emergency department: a project idea.

11.15 Coffee

11.30 Session 6: Leadership

- Sigrún Gunnarsdóttir: Successful leadership in Disastrous Events: The Three-I disaster leadership model
- Andrea Eriksson: Forms of Distributed Leadership – A Case study of Six Workplaces in Eldercare
- Beate Andre: How is leadership experienced in Joy-of-Life-Nursing-Homes compared to ordinary Nursing Homes: A qualitative study.

12.30 Symposium Closing

12:40 Lunch

13:30 Steering group meeting (Steering group only)

Session 1: Cross sector and primary healthcare

Care across system boundaries – preliminary results from a cross-sector chronic wound management model intervention

Authors: Kari Anne Holte, Ragnhild Gjerstad – Sørensen, Sindre Aske Høyland, Olaug Øygarden

NORCE, Norwegian Research Centre, NO – 5838 Bergen, Norway

Introduction: There is increased attention to care transitions, being "the movement of a patient from one health care setting to another" (Werner et al 2020), thus transitions that occur across multiple work systems (ibid). Care transitions can be especially challenging for vulnerable people like elderly or frail patients. An outpatient wound management model, aiming to reach chronic wound patients with major health problems and mobility issues, was established at a Norwegian university hospital. An ambulatory wound team (AWT), consisting of two specialist nurses, conducts home visits to chronic wound patients, including face-to-face communication and training with municipal health care personnel. A 4-year research project follows the intervention.

Aim: To present preliminary results of work system variations explored during visits to chronic wound patients.

Material and Methods: The data consists of observations of 20 visits to patients within private homes, institutions, and assisted living across 13 units in 5 municipalities. Written notes during these visits were made in a predefined scheme, based on an initial procedure of the visit and the work system domains in the System Engineering Initiative for Patient Safety (SEIPS)-model (Carayon et al 2006). Short conversations with the AWT (before and after) and municipal health personnel (after) were additionally performed. A first categorization was made in accordance with the work system domains in the SEIPS model (ibid).

Results: Each visit can be seen as a dynamic "real-time" interplay between several work systems; the AWT's (hospital) work system, the different unit's work systems, and the patient's home, e.g., the patient's work system. The preliminary analysis shows that across the 13 units, variations are found in the in*dividual domain* (ex: competencies), *task design (*ex: specialization vs generalization), and the *organizational domain* (ex: prioritization of resources). The domain *physical environment* is embedded in both the municipal work systems (institutions) and the patient's work system (their home). For the domain te*chnologies and tools,* the main divide is between AWT and the municipalities.

Conclusion: The tentative analysis indicates huge variation in work systems involved, also within municipalities. By means of the SEIPS-model, these variations will be further explored in relation to processes and outcomes.

References:

Carayon, P. A. S. H., Hundt, A. S., Karsh, B. T., Gurses, A. P., Alvarado, C. J., Smith, M., & Brennan, P. F. (2006). Work system design for patient safety: the SEIPS model. *BMJ Quality & Safety*, 15(suppl 1), i50-i58.

Werner, N. E., Rutkowski, R., Graske, A., Finta, M. K., Sellers, C. R., Seshadri, S., & Shah, M. N. (2020). Exploring SEIPS 2.0 as a model for analyzing care transitions across work systems. *Applied ergonomics*, *88*, 103141.

Continuous Improvement at a Public Hospital Biochemistry Department: Maturity, Barriers, and Drivers

Authors: Ann Salling Hejlesen, (PhD fellow), Dukovska-Popovska, Iskra, Matthiesen, Rikke Vestergaard, and Johansen, John
Affiliation: Aalborg University, Department of Materials and Production.

Introduction
Clinical biochemistry departments (CB) at public hospitals in Denmark, are obliged to adhere to specific standards and require specialized staff. Current challenges caused by a plethora of issues include consistent error rates (especially in the preanalytical phase), high employee turnover, and attraction of new employees. Continuous improvement (CI) and employee involvement are seen as management approaches that can cope with these challenges. However, there is a need to contextualize continuous improvement approaches to fit the public hospital sector – specifically CB settings.

Aim
To characterize current CI processes and activities at a CB department and identify drivers and barriers for more mature CI.

Methods
A collaboration with a public hospital CB department with approximately 300 employees was established. An action research approach is selected to undergo a case explorative phase through three months, as preparation for a subsequent phase of intervention (not reported here). The current improvement activities are identified and described through participatory observations, conversational interviews, document content analysis and workshops. Activities are categorized using CI norms, typologies and maturity assessment tools. Drivers and barriers for improvement are thereby implicated.

Results
Using the CISAT maturity self-assessment tool, the level is found to correspond to novices. There is already a basis for developing further within several CI aspects. Drivers are the quality management system and specific employees in the section, front-line staff desire for feedback on own performance, knowledge sharing, and involvement in improvements. Direct barriers encompass a low level of strategic focus and clear goals. Performance data is being established. These findings point towards future interventions to demonstrate common CI tools and team-management to create linkage to strategy.

Conclusion
Maturity awareness and analysis of drivers and barriers support and motivate improvement – also in contexts working with strict clinical quality standards. Roles and practices outlined within these standards do not hinder development of CI maturity.

The role of telehealth in increasing the availability and accessibility of Finnish primary care: Analysis of register data from 2017 and 2022

Authors: Visa Väisänen1, Timo Sinervo1, Markku Satokangas1

1 Finnish institute for health and wellbeing (THL), Welfare State Research and Reform - unit

Introduction: The use of digital care services, such as telehealth, has increased dramatically in primary health care after COVID-19. Especially in rural areas with a shortage on personnel, telehealth is seen as a key tool in solving the current issues of care workforce and care availability. However, little is known about the measured effects of telehealth use on the availability and accessibility of primary health care.
Aim: The aim of the study was to examine how the availability and accessibility of Finnish primary care has changed between years 2017 and 2022, especially taking into account the use of telehealth.

Material and methods: Aggregated data from the Finnish care register (years 2017 and 2022) were used. Variables on care supply (both physical and remote visits), care needs, population size, and the average travel time to the nearest primary care unit were included. An indicator was built, based on the supply and demands of care and the mean travel time, while accounting for the care needs of the population. To examine the role of digital case services, indicator values with and without the remote visits were compared using statistical methods.

Results: Poor care availability and/or accessibility of primary care was prominent in both eastern and northern Finland, and in the western coast. Around large population centers, the indicator values were the highest. The inclusion of telehealth services substantially increased the accessibility in some areas, especially in eastern Finland. In general, the indicator values seem to have more variance in year 2022 when compared to year 2017, suggesting that the geographical differences in availability/accessibility of primary care have diverged post-COVID.

Conclusion: Based on Finnish register data, our results suggest that the use of telehealth can substantially increase the availability and accessibility of primary care services. In addition, geographical differences in service provision might have increased in recent years. However, many risks and challenges remain with telehealth, such as the potential negative effects on vulnerable populations and on quality/continuity of care as well as worker wellbeing.

Session 2: Municipal healthcare

Reorganizing municipal home-based healthcare services: Innovation barriers and their interrelations.

Authors: Tine Nesbø Tørseth, **Olaug Øygarden** & Leif Jarle Gressgård, NORCE

Background

Norway has a growing elderly population. Resources for providing care in care homes for this population are under pressure, and part of the government's strategy to meet this challenge is to enable the elderly to live in their own homes for as long as possible. This requires services to be directed towards more home-based healthcare provided by municipalities. To make these services more efficient, sustainable and suitable for future needs, an innovative reorganization of home-based healthcare services was initiated in a municipality in the western part of Norway in 2020. This reorganization was an *administrative process innovation*, i.e. an effort to create "new ways, methods and forms of undertaking tasks within the organization" (Cinar et al. 2019:4). Even though ideas of innovation are often perceived as bearing a positive outcome, research has shown that several barriers may occur in the innovation process. Cinar et al. (2018, 2019) have identified the following categories of barriers: (i) organizational, ii) interaction-specific, iii) contextual, iv) innovation characteristics specific, and v) insufficient resources. This paper's theoretical outlook is based on this typology. It aims to identify which barriers the municipality encountered in their innovation process, and further, the interrelationships between different categories of barriers.

Methods

The paper is based on 60 in depth interviews with a total of 77 informants (employees, employee representatives, managers at different organizational levels and project managers) who all took part in the project, as well as on observation of and documents from meetings held in the project's steering committee. The data were analyzed 1) by identifying barriers according to the typology presented above, and 2) by aiming to identify if and how barriers were interrelated.

Findings

The findings show how all barrier categories in the abovementioned typology were found, and furthermore, that they were often interrelated, meaning that the occurrence of one barrier, as well as efforts to overcome that barrier, could lead to the occurrence of others. Particularly the scarcity of financial and human resources was found to be a barrier underlying and effecting other barriers to innovation.

The temporary stay: Initial observations from the rebirth of Danish municipal healthcare

Authors: Kasper Edwards[1], Rebecca Grantriis[1], Mahan Rajaeigolsefidi[1] and Kathrin Kirchner[1]

[1]Technical University of Denmark

Introduction:

The Temporary Stay (TS) (DK: Det midlertidige døgnophold) is a municipal healthcare structure that takes care of patients too healthy to be at the hospital and too sick to be at home. In practical terms this means elderly co-morbid patients where the hospital sees little potential for improvement. In Denmark the cost having a patient at a hospital is covered by the municipality where the patient lives. When the hospital doctor declares "treatment completed" for the patient, the cost pr day for the patient is increased significantly e.g. from 4000.- DKK to 6000.- DKK.

This provides a strong incentive for the municipalities to find a cheaper solution for keeping the patients. The solution has been the so-called Temporary Stay, which has been growing from a few to 3500 beds since 2007. This is a massive number of beds and roughly 65% of the total Danish medical bed capacity.

No central structure has designed, developed, and made requirements for this structure. Hence, each municipality has developed its own take on the temporary stays.

Aim:

To uncover 1) patient composition and work organization, 2) the units' structure, processes, and work tasks, 3) the patient process from hospital to home, 4) the medication process.

Materials and methods:

In five temporary stays we conducted the following data collection: 1) Site tour, 2) management interview, 3) Interview with nurse in charge of admission and discharge, 4) group interview with employees.

Results:

TS'es are diverse and the five examples show significant differences on all studied parameters. In general, the transfer from hospital was problematic with discrepancies in documented and actual medication. The TS'es had different approaches revolving around getting information from the hospital. This is time consuming and detract from care. The organisation and staff composition varied with some having many nurses and others mainly assistants. A general theme was frequent and major organisational changes and restructuring.

Conclusions:

TS'es are a large and growing structure with too divers organization and competence – at least compared to the much more standardized hospitals. Municipalities are using TS'es as a cost cutting exercise and appear to be immature in their short-sighted approach to management.

Reformation of Scandinavian healthcare systems and novel models for municipal healthcare delivery

Authors: Rebecca Grantriis[1] and Kasper Edwards[1]

[1]Technical University of Denmark

In recent decades, countries with universal healthcare coverage have implemented comprehensive reforms to cost-effectively tackle demographic developments and increasing prevalence of (co-occurring) chronic disease and illness. Reforms that require primary sectors to deliver more comprehensive medical care and treatment through local service in municipalities (Agerholm et al., 2023; Christiansen, 2012; Eika & Hvalvik, 2022; Nordisk Medicinalstatistisk Komité, 2013). Municipal-based healthcare delivery has since become a cornerstone of Scandinavian healthcare systems, and various novel models for municipal healthcare delivery have emerged. However sparse, the available empirical and context specific research on the impact and practical implications that healthcare reformations have for healthcare professionals' work situation, treatment quality and patient safety in municipalities is growing, suggesting an upcoming field of research.

In Denmark, *the municipal temporary stays*, previously used for respite care, have been continuously utilized to accommodate increasing pressure of rapid discharge of especially geriatric multi-morbid patients. It is estimated that up to 70% of Danish hospital beds have ''moved'' to municipalities since the reform in 2007 (Vinge, 2021). In the pursuit of care integration, where continuity in citizens' healthcare trajectories is the focal point (Barrenho et al., 2022; Carinci et al., 2015; Damery et al., 2016), temporary stays serve a cross-sectoral purpose between general practitioners and hospitals, presenting a fragmented 'web of care', where the common organizational prerequisites that are considered imperative to continuity in care paths, are set out of play. From the outset, the task of temporary stays resembles the task of hospitals in terms of care and treatment. Nevertheless, the structural conditions for the provision of these are different and vary locally, in terms of both medical facilities, competence and availability of healthcare professions (Vinge, 2021), possibly challenging equity, professional capacity, quality and patient safety.

Faster discharge rates and increased complexity in patients makes treating and caring for patients in municipalities a common challenge across Scandinavia, and it is necessary to share insights for policy learning and organizational development – so let's have a status on what we know, and where we are heading.

Session 3: Workshop

Workshop on the development of key components of Leadership program for Recovery of health care employees

Authors: Andrea Eriksson[1], Majken Epstein[2], Marie Söderström[2] and Anna Dahlgren[2]

Affiliations: 1: Division of Ergonomics, Department of Biomedical Engineering and Health Systems, KTH Royal Institute of Technology; 2:Division of Psychology, Department of Clinical Neuroscience, Karolinska Institutet

Background description

Recovery is an important factor for good health and performance, not least during periods of stress and strain. Healthcare staff, especially those working in 24/7 operations are often subjected to high workload with insufficient opportunities for recovery. A health-oriented leadership is responsive to employees' signals of overload and works to create working conditions with manageable work demands, conditions for recovery during and between work shifts, and adaptations of work according to employees' capacity. According to work environment legislation, managers have the formal responsibility for ensuring that employees have a manageable balance between workload and opportunities for recovery. However, managers in 24/7 healthcare themselves often report a demanding work situation, which might affect their own health and become an obstacle for the leadership. In summary, managers have a key role in promoting employee recovery, but in order to take on to that role, the organization needs to work in parallel with supporting managers' own recovery.

The purpose of the workshop is to highlight and discuss key conditions and strategies for the promotion of 1) healthcare managers' recovery and sustainability 2) healthcare managers' active work with supporting employee recovery. During the workshop, knowledge and reflections on key conditions for developing and sustaining a "leadership for recovery" will be exchanged between participants.

Content and format of workshop:

- Presentation by the research group of preliminary results from an ongoing qualitative study on healthcare managers' views on key factors for both their own recovery as well their strategies for promoting employee recovery.
- Presentation by the research group of a tentative format and potential core components of an intervention program aiming at promoting "leadership for recovery".
- Participants share in smaller groups ideas and reflections on key conditions for developing a leadership for recovery.
- Participants groups share with the whole workshop group what they see as critical factors for developing and sustaining a leadership for recovery within healthcare.

Session 4 Nursing

Managing sustainable working hours within participatory working time scheduling for nurses and assistant nurses: A qualitative interview study with managers and staffing assistants

Authors: Majken Epstein[1], Erebouni Arakelian[1,2], Philip Tucker[3,4], Anna Dahlgren[1]

Affiliations

[1]Department of Clinical Neuroscience, Division of Psychology, Karolinska Institute, Solna, Sweden
[2]Department of Surgical Sciences, Uppsala University, Uppsala University Hospital, Uppsala, Sweden
[3]School of Psychology, Swansea University, Swansea, United Kingdom
[4]Stress Research Institute, Department of Psychology, Stockholm University, Stockholm, Sweden

Introduction: Hospital nurses and assistant nurses often work on rotating shifts, which affects opportunities for sleep, recovery and work-life balance. A participatory scheduling approach is commonly used, where working hours are planned in collaboration between employees, managers and staffing assistants. Influence over working hours is related to positive outcomes among shift workers. However, it also places responsibility on the employee to schedule working hours that promote health and patient safety, i.e. sustainable working hours. Accordingly, the organisation has responsibilities to support the employee.

Aim: The aim of this study was to gain insights into how healthcare managers and staffing assistants work to achieve sustainable working hours within a participatory scheduling system.

Materials and methods: Semi-structured individual interviews were conducted with 11 managers and 9 staffing assistants in Swedish healthcare. The interviews were transcribed verbatim and analysed using thematic analysis.

Results: Several key factors for achieving sustainable working hours within the context of participatory scheduling were described: distribution and clarity of responsibilities, designated time for scheduling, establishing shared responsibility, considering fairness, fostering an individual relationship with the employee, managing dissatisfaction, providing support, clarifying guidelines for sustainable scheduling, managing inconsistencies between employee requests and sustainable scheduling, and considering recovery opportunities and the competence mix on shifts. Additionally, contextual factors, such as staffing levels, working procedures, night working hour arrangements and technological support, were highlighted as important.

Conclusions: Achieving sustainable working hours within participatory scheduling involves considering the interactions between factors at the levels of the organisation, the individual and the technological systems. Organisational factors include clarifying responsibilities, making working hours a priority issue for leaders, and providing clear guidelines for sustainable scheduling. Individual factors include employee engagement and responsibility. Moreover, technological systems have the potential to be improved. Contextual factors must also be considered, e.g. staffing levels, working procedures on the wards and night working hour arrangements.

"It is the professionalism and the morale, - you just feel good at the unit." Nurses´ experience of successful work environment at university hospital cardiac unit

Authors: Sigrún Gunnarsdóttir, RN, PhD, professor, University of Iceland, School of Business and Rósa Eiríksdóttir, RN, MSc, Primary Health Care of the Reykjavík Capital Area, Human Resources.

Introduction.

Nurses' work environment is crucial for their wellbeing at work and job retention. Appropriate staffing, workload, cooperation, trust, professional development and lifelong learning is important for safety of both staff and patients. Social support, supportive morale, intrinsic motivation, clear accountability and job autonomy are foundational for a healthy work environment and important to prevent job burnout. First line managers play a key role in enhancing health promoting factors at work.

Aim.

Despite overall poor staff perception of work environment at Landspítali university hospital and a serious lack of nurses, the cardiac unit has come out well in work environment surveys and lack of nurses at the unit is non-existing. It is important and interesting to examine and shed light on nurse experienc of the unit´s work environment.

Material and Methods.

Qualitative interviews were conducted with twelve nurses at the cardiac unit to shed light on important aspects of their work environment. Interviews were analyzed using qualitative thematic analysis.

Results.

Three themes emerged from the data: 1) "We are always helping each other out"; 2) "You are expected to do well"; 3) "The management is positive and very professional". The findings indicate that the nurses link their job satisfaction with supportive morale at the unit, sufficient staffing, good and helpful cooperation with colleagues, active, supportive and visible unit management, job autonomy, opportunities to influence their work as well as opportunities to learn and to develop professionally. Nurse first-line management characteristics refer to structural and psychological empowerment and to authentic, transformational and servant leadership with special focus on staff´s active particiption in decision making, professional development and ongoing learning through mutual collegial support.

Conclusions.

The findings shed light on the crucial role of active, professional, visible and supportive managment for job satisfaction, staff flourishing and successful hospital work environment.

The determinants of and ways to mitigate medical deserts at organizational level

Author: Timo Sinervo, Finnish institute for health and wellbeing

Shortage of personnel in primary care, availability and accessibility of services – medical deserts - are major problems in European countries. Medical deserts mean situations or areas where people have difficulties in accessing care, due to waiting times or long distances, typically. Often the medical deserts exist in rural areas but also in densely populated areas. The determinants of medical desertification can be divided to health worker personal factors, characteristics of the organization, services system, workforce planning and training. The ways to mitigate medical deserts, are divided to regulatory, financial, educational and tailored approaches (new models to organize services, professional support and engagement of professionals). The aim of this paper is to find out the determinants and ways to mitigate medical deserts, especially organizational factors and new models to organize care. Organizational factors play an essential role in not only recruiting but also retaining competent professionals in organizations.

Methods

The study is a part of Oases-project in 7 European countries. The analysis of the determinants and the ways to mitigate medical deserts was based on a literature review. We limited the analysis to primary care in order to be able to have a more comprehensive review of one sector of health care. We included studies written in English, during 2000-2021, conducted in Western countries. The following databases were used: Web of Science, PubMed, Scopus, Medline (Ovid), CINAHL (EBSCO). 76 studies were included in the review.

Results

The determinants of medical deserts were work organization and stress, lack of professional support, limited possibilities for providing adequate care, shortage of professionals, and competence requirements. The ways to mitigate desertification were supporting professionals, eHealth, task-shifting, multiprofessional care, and new ways to organize care.

Conclusions

In terms of organizational measures it's important to find ways to relieve stress and increase professional support. Especially in small practices in rural areas eHealth is important, as a way to organize services and providing professional support to employees. It's also important to strengthen multiprofessional care and to find new, innovative ways to organize care.

Main messages

Multiprofessional care, eHealth, task shifting, and positive work environment can decrease medical deserts.

Session 5: Workflow

Swift and even hospital-wide patient flows: Barriers and solutions

Authors: Peter Almström and Philip Åhlin

Chalmers University of Technology, Gothenburg, Sweden

Introduction

Productivity must increase in healthcare to cope with the present and future high demands. One way of increasing productivity in healthcare is to create swift and even patient flows. Efforts have been made to create patient pathways, but they are seldom created with a systemic perspective. This is very tangible in the most complex healthcare setting: the large hospitals. Many patients get stuck in the system at some point with the effect of long waiting times and medical quality consequences.

Aim

The aim of this presentation is to present the result of two studies regarding swift and even hospital-wide patient flows. The first study aims at finding barriers to the patient flows and the second study's aim is to find solutions that will break these barriers.

Material and Methods

The first study is a systematic literature review based on the literature about improvements in specific settings in hospitals that mention problems in the flow of patients or information to other organizational units at the hospital in question or with organizations related to the in- and outflow of patients. The second study is an interview study with hospital managers from 18 of the world's 25 best hospitals according to Newsweek's ranking, to find how these hospitals try to break the barriers and find solutions to create more swift and even flows.

Results

Both studies are published in journal articles. The first study concludes with a cause-and-effect model that connects different barriers to root causes. Lack of resources is one obvious barrier, but there are many other barriers that don't require more funding to healthcare to find solutions to. The second study provides a systematic framework that connects types of solutions to the barriers from the first study.

Conclusions

Healthcare is constantly demanding more resources, but these studies show that there are a lot of barriers to swift and even patient flows that can be solved be changing they way healthcare is managed, that won't require more funding.

Swift and even hospital-wide patient flows: Operationalization

Authors: Philip Åhlin and Peter Almström

Chalmers University of Technology, Gothenburg, Sweden

Introduction

In times of rising healthcare budget restrictions, hospitals must focus their activities on how to do more with less. Hospitals must become better at making their flows swift and even, i.e. more productive and predictable, across the whole organization to spread demand pressure evenly and optimally utilize available capacity. As hospitals often struggle with short-horizon problem-solving, more research is needed on how this may be operationalized.

Aim

The aim of this study is 1) to understand how a swift and even hospital-wide patient flow is operationalized and 2) how information, decisions, and actions supporting this are unfolding over the day and week.

Material and Methods

A multiple case study of five hospitals in the US and Europe has been conducted during the years 2022-2023 with on-site observations, interviews, and documentation following multiple pre-visit interviews. All relevant settings were studied, and managers and staff were interviewed at all levels of the organization. The design of each visit was based on pre-visit interviews, aiming to understand the organization and identify important events and activities unfolding over the day and week.

Results

Early results are pointing to that hospitals in both the US and Europe are feeling pressured to improve their patient throughput. American hospitals put hope in the centralization of activities, through capacity coordination centers, to build daily strategies on how to best utilize available capacity and avoid choke points. European hospitals rely more on coordination by a couple of interacting and organically developed networks. As hospital beds become scarcer by the year, hospitals try to avoid admissions through larger ambulatory care involvement, and the implementation of dedicated inpatient discharge programs. There is also a careful examination of what patient groups to keep in the hospital, and which to give to specialty hospitals, to find a sustainable, profitable, and motivational patient mix.

Conclusions

It becomes increasingly evident that hospitals must break silo mindsets across the organization and become more centrally coordinated to face a future with increasing demand and more and varying resource scarcity. A centralization must however come carefully to ensure sufficient staffing autonomy and flexibility.

Tackling ED stress, burnout and improving workflow in the emergency department: a project idea

Authors: Sarah King and Lars Petter Bjørnsen

Trondheim Emergency Department Research Group (TEDRG), St. Olav's Hospital and NTNU

Introduction: Over the past decade, St. Olav's Hospital in Trondheim has seen a significant rise in annual Emergency Department (ED) visits, climbing from 17,000 to nearly 30,000. This surge strains both patient care and hospital resources, impacting treatment efficiency, satisfaction, and staff well-being. Staff experience heightened stress, burnout, and turnover, necessitating organizational solutions for maintaining quality care.

Aim: The Trondheim Emergency Department Research Group (TEDRG) plans to address this problem through innovative and collaborative efforts. Academic studies are crucial alongside hospital management solutions. We are currently developing a project to analyze ED staff activity, stress levels, and perceived 'illegitimate' tasks to pinpoint sources of stress and poor workflow. Unreasonable tasks may include those that are above or below a person's role, demands that are unclear or conflicting (e.g., unequal workloads), completing tasks with insufficient resources (e.g., time or training), or having to complete tasks with difficult consequences (e.g., making independent decisions). Unnecessary tasks may include impractical or outdated ways of working, insufficient or dysfunctional technology, unnecessary procedures, and bureaucratic demands. This latter category may be particularly associated with poor workflow. The overall objective is to develop a small number of interventions, rooted in evidence and design thinking, that will be tested in the ED at St. Olav's Hospital. For example, these solutions may involve new processes or physical layouts and/or new communication strategies, roles, or ways of working to alleviate unreasonable or unnecessary tasks. Importantly, this project will incorporate a 'healthy healthcare' perspective by evaluating staff outcomes, patient quality of care, and cost efficiency. It is an important approach because any service changes should not just benefit patients, or ED staff, or hospitals. If benefits for all three can be demonstrated, interventions are more likely to be successful in both the short and long-term.

Paper objective: Our presentation will briefly describe our current research project proposal, but the main objective is to elicit feedback as well to gain others' perspectives, experiences and ideas for tackling staff stress and burnout in healthcare within the confines of current budgets.

Session 6: Leadership

Successful leadership in Disastrous Events: The Three-I disaster leadership model

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Introduction During the COVID-19 pandemic, healthcare leadership and leadership in general has been put to the ultimate test. Leaders' main challenges during disastrous events are to handle recurrent situations of shifting goals, poor structure, novelty, unreliable information, and urgent needs of understanding of events to foresee what might happen in near future. Leaders' reactions to the challenges could have a permanent impact on social, economic, and health foundations of communities and organizations. The set of characteristics attributed to leaders who are perceived to employ the leadership process successfully can be observed in their managerial behaviors and reactions and have been partly discussed, but there is lack of empirical knowledge as to how leaders react to disastrous situations.

Aim To contribute to leadership research and enable a better understanding of successful leadership during disastrous events in the Western World.

Material and Methods Empirical research findings on manifestation of leadership in fundamental infrastructures during disastrous events were systematically reviewed. From 4.343 identified articles and a careful selection process, 153 studies were screened for full-text eligibility and a total of 51 published and empirical studies were eligible for inclusion.

Results The systematic review lead to two propositions: First, successful leadership manifests in a leader who has inner strength, practices inclusion, and is skilled in implementation. Second, successful leadership emerges through the ability to shift from leading strategic initiatives to managing individual tasks needed to succeed in a given situation.

Conclusion Leadership during disastrous events reflect leaders' characteristics and emerges through managerial actions. The Three-I disaster leadership model offers a set of practical attribution and appropriate preparation and reaction for future disaster leaders.

Forms of Distributed Leadership – A Case study of Six Workplaces in Eldercare

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Introduction: The concept of distributed leadership (DL) has been addressed in previous research, but few studies link their analysis to current and comparative empirical studies on the underlying mechanisms enabling or hindering the development of distributed leadership. This study aims to identify and analyze various forms of DL in eldercare.

Materials and Methods: This is a case study based on six specific workplaces in eldercare in Sweden in different ways aiming to work toward an organization that emphasizes trust and distribution of power. Interviews with employees and managers as well as observations were performed at the workplaces. A realistic evaluation framework was used to understand the different workplace program theories regarding DL. Key mechanisms and how they interact with contextual factors in each case were categorized. Comparative analyses of outcome patterns were performed, identifying key processes in terms of realizing DL.

Results: Analyzing the program theories in the respective cases showed that they have different orientations influenced by different motivations for DL, which also interact with how DL was manifested and realized. By comparing differences and similarities in the cases, key processes in terms of realizing DL emerged, namely processes of formalization, (non-)participatory approaches to implementation and (non-)collaborative processes across organizational levels.

Conclusions: The result points to that regardless of the path for achieving DL adopted by the various workplaces studied, the common denominator for those succeeding in distributing leadership is the development of a relational agency based on shared visions, a shared understanding of roles and responsibilities, a learning approach and a dialogue-oriented relationship between management and employees. Another critical aspect is experiencing having sufficient resources to thereby make it attractive to take on more responsibilities.

How is leadership experienced in Joy-of-Life-Nursing-Homes compared to ordinary Nursing Homes: A qualitative study.

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Background:

Nursing homes are under strong pressure to provide good care to the patients. In Norway, municipalities have applied the 'Joy-of-Life-Nursing-Homes' (JoLNH) strategy which is based in a health-promoting approach building on the older persons` resources. Meanwhile job satisfaction is closely related to fewer intentions to leave, lesser turnover and reduced sick leave. The knowledge about adjustable influences related with job satisfaction might help nursing home leaders to minimize turnover and preserve high quality of care. This study explores leadership in Norwegian nursing homes with and without implementation of JoLNH: How does leadership influence on the work environment and how is leadership experienced in JoLNH compared to ordinary Nursing Homes?

Method:

We used a qualitative approach and interviewed 19 health care personnel working in nursing homes in two Norwegian municipalities. The analysis was conducted following Kvale's approach to qualitative analysis.

Results:

The main categories after the data condensing were (1) the importance of leadership, and (2) the importance of leadership for the work environment in a municipality with (a) and without (b) an implementation of the JoLNH strategy.

Conclusions:

The health care personnel in the municipality with an implementation of JoLNH emphasize that the leader's influence may lead to increased motivation among the staff and better control of changes and implementation processes. Our findings may indicate that the employee from a JoLNH municipality experience a more trustful relationship to the leader.