ABSTRACT BOOK

16th NOVO symposium

"Leadership for Tomorrow's Healthcare: Turning Challenges with Digitalization into Sustainable Solutions"

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Contents

Session 1: Leadership Practices

Balancing core mission, decisiveness and warmth: Leadership practices for sustainable healthcare delivery (Sigrún Gunnarsdóttir and Kasper Edwards)

Introduction

Leaders play a pivotal role in healthcare performance, influencing staff well-being as well as the safety and quality of care. Leaders' priorities and daily interactions with staff are central mechanisms through which working conditions, motivation, and service outcomes are affected. Over the past decades, research has increasingly highlighted the importance of leadership practices that emphasize effective communication and the human dimensions of management as prerequisites for translating strategy into sound everyday decision-making. Nevertheless, important gaps remain in understanding what characterizes effective leadership in contemporary healthcare settings.

Aim

To generate in-depth knowledge of the strategic approaches adopted by healthcare leaders who have responded effectively to challenges within healthcare systems in recent years.

Materials and Methods

Effective healthcare leaders were defined as those who had successfully advanced: (1) a healthy work environment and employee well-being; (2) patient quality and safety; and (3) organizational performance and sustainability. Participants were recruited through snowball sampling, and participation was voluntary. Semi-structured interviews were conducted with healthcare leaders who, based on expert judgement, were considered to meet the study criteria. Data were analysed using thematic analysis.

Findings

Three themes were identified: (1) a clear vision of the core mission, with patient safety as a central priority; (2) trust-based relationships and constructive communication with staff; and (3) purposeful feedback delivered with both decisiveness and warmth. Leaders consistently anchored priorities and decisions in the core clinical mission and quality of care, particularly when addressing challenges, introducing change, or providing feedback. Interactions with staff were intentionally grounded in trust and designed to elicit and strengthen intrinsic motivation and well-being. Leaders also demonstrated a readiness to provide candid feedback while maintaining a warm and respectful tone.

Conclusions

The findings highlight the importance of healthcare leadership grounded in trust, humility, and a sustained focus on core services. These leadership practices appear to support staff flourishing and contribute to sustainable organizational performance.

Tough love – How Danish healthcare managers enact leadership to create wellbeing and high-quality outcomes (Kasper Edwards and Sigrún Gunnarsdóttir)

Introduction

Healthcare organisations face sustained pressure to deliver high-quality services while maintaining employee wellbeing which are often treated as competing priorities. Leadership is frequently highlighted as central to addressing this challenge, yet empirical insight into how healthcare managers enact leadership in daily practice remains limited. We study healthcare managers who are formally recognised for their leadership which provides an opportunity to examine leadership as practice and to generate empirically grounded knowledge of how quality and employee wellbeing are produced.

Aim

To examine how recognised healthcare managers enact leadership in daily practice to create high-quality outcomes and employee wellbeing.

Methods

We identified 5 Danish healthcare managers who were recognized by their peers for their leadership, for instance by receiving awards for best working environment. We used semi-structured interviews and the interviews were recorded. Interviews lasted between 1 and 1,5 hours. Interviews were transcribed and common themes identified. We applied reflexive thematic analysis following Braun and Clarke (2006, 2019), moving from familiarisation with the data through initial coding and theme development, to refinement, naming, and lastly reporting.

Results

Across the interviewed managers, leadership was enacted through persistent and practice-oriented engagement with employees. All managers emphasised close everyday presence, using ongoing interaction to address behavioural and relational issues as they emerged. Leadership focused on working with the individual employee, including explicit attention to motivation and meaning in work, while simultaneously reinforcing collective responsibility and collaboration.

Disruptive or dominating behaviour was addressed directly and consistently. Employees were given repeated opportunities to adjust their behaviour, but persistent negative conduct was ultimately met with dismissal to protect the team and work environment. Persistence, rather than authority, characterised leadership practice. Managers described sustained correction of small deviations in behaviour and standards through continuous presence on the floor, using attention to everyday practices to reinforce organisational culture. These leadership practices were described as contributing to both high-quality outcomes and employee wellbeing.

Leadership presence in public care organizations - meaning, mechanisms and strategies (Monica Andersson Bäck, Camilla Blomqvist, Lotta Dellve)

Background: Leadership presence is widely promoted as essential for quality, wellbeing, and learning in care organisations, yet its practical enactment remains elusive—particularly in large, complex and geographically dispersed community care settings. Although presence is frequently proposed as a self-evident solution in leadership theories such as LMX, transformational and distributed leadership, little is known about what leadership presence *means*, how it is *practised*, and which *conditions* shape its everyday feasibility.

By bridging the literature on leadership context (Grint, 2005; Oc, 2018; Yukl, 2013), emotional and human service work (Bolton, 2005; Hochschild 2012; Sieben & Wettergren 2010), the article offers a perspective on how managerial practice intersects with employees' experiences in everyday work. In doing so, it answers calls for further research on how organisational and contextual factors shape work practices. The article follows calls for understanding managerial practice as situated within the specific organisational and relational conditions of human service organizations (Berntsson et al., 2025; Johansson et al. 2023; Hasenfeld 2010; Wallin et al., 2014).

Aim: The study seeks to illuminate how leadership presence emerges, based on the following research questions: What meanings do managers and employees attribute to leadership presence in everyday practice? What practices do first-line managers use to navigate proximity and distance in their leadership? What mechanisms shape the enactment of leadership presence in community care organizations?

Methods: A qualitative design combined 13 individual interviews with first-line managers and six focus groups involving 19 managers, 7 frontline staff and 12 senior leaders. Analysis focused on the conditions that shape leadership work in human service organisations.

Findings: Leadership presence is constituted through five interconnected modalities—physical, digital, emotional, cognitive and temporal—each enacted and interpreted differently by managers and frontline staff. Presence was further shaped by three mechanisms: (1) **organisational conditions** (spans of control, geographic dispersion, top-down directives, staff turnover); (2) **leadership capabilities** (handling emotions, digital responsiveness, translating policy into locally meaningful guidance); and (3) **relational work** (validation, trust-building, calibrating presence to team maturity). Together these mechanisms illustrate how managerial practice is situated within the specific organisational and relational conditions of human service work.

Conclusion: Leadership presence operates as a delicate relational craft, requiring structural feasibility and continuous calibration across multiple forms of presence. Effective presence supports alignment, psychological safety and value-based care—but remains contingent on organisational design and the manager's capacity to navigate emotional and relational complexitie

Session 2: Leadership, Voice and Managerial Conditions

Communicative leadership practice in community care. (Camilla Blomqvist Monica Andersson Bäck, Lotta Dellve)

Introduction: In an era characterized by organizational changes and technological developments but also on uncertainties and cultures of silence parallel to trust and participation in the public sector (Wynen, et al 2020), the communicative dimensions of leadership has become increasingly central (Iddrisu, 2025). In particular in community care, where complex control systems, multiple stakeholders, and legitimacy requirements often characterize strategic decisions (Williamsson 2023) and everyday leadership practices (Haycock-Stuart, 2010).

Although communication is a central dimension of general leadership theories (Wong, 2010), there is little research focusing communicative leadership and especially in complex organizations, such as public community care. However, knowledge is needed about the practice of communicative leadership, to support development of communicative competences in organisations.

Aim: The study is to deepen the understanding of how communicative leadership is understood, takes shape and practiced among first-line managers in community care.

Methods: The study has a qualitative design with analysis of individual interviews and focus groups with first-line managers (13), their employees (7) and senior management (12). The interviews followed an interview guide with themes related to communicative leadership, such as: how managers describe their communicative mission; how dialogue and feedback are handled; how participation and understanding are created in everyday life; which organizational factors support or hinder communicative work. Focus groups were used to capture collective interpretations and experiences of communicative processes (Kitzinger, 1995).

Results: *Carefully carrying communication* describe managers' communicative leadership practice, shaped by intertwined dimensions: *carrying mutual relationships, carrying values*, and carrying *decisions into practices*. Communicative leadership requires presence, courage, and continuous translation to create meaning and trust in complex chains of values and decisions. To mitigate distance and distrust between organisational levels and weak top-down communication flow, managers engaged in informal conversations to translate decisions into practice, created arenas for dialogue were showing presence. Thus, communicative leadership is a dynamic process, with dual loyalty and the efforts are integrated into the core of leadership practice.

Conclusion: A constructive communicative leadership uses intertwined actions - continuously, consciously carefully carrying values, mutual relationships and decisions into practice - to maintain trust and understanding within the organisation.

Supporting First-Line Managers' Recovery and their Leadership for Promoting Employees' Recovery – Content and Design of a Sleep and Recovery Intervention

(Anna Dahlgren, Majken Epstein, Andrea Eriksson, Anette Harris, Marie Söderström)

Background: Previously, we demonstrated the effectiveness of an intervention program supporting nurse's strategies for sleep and recovery in relation to work-related stress and shiftwork. However, a process evaluation revealed that workplace-related factors, such as demanding work hours, social norms and work processes, limited the program's effectiveness. This highlights the need for management involvement, as first-line managers can play a key role in promoting employees' recovery and sleep. Yet first-line healthcare managers themselves often struggle with heavy workloads, which may hinder both their own recovery and the support of their employees' recovery and sleep. The current aim was to describe; I) the development and content of a sleep and recovery intervention for first-line managers in healthcare II) strategies used by first-line managers.

Method: The content of the intervention was based on a recovery program for new nurses, a program for health-promoting leadership, and factors identified in interviews with first-line managers. The content was verified with a reference group of managers and HR personnel.

Participants were recruited through HR at two hospitals. Invitations were sent to approximately 545 first-line managers of whom 69 signed up and were randomized to intervention or control groups. Of the 34 participating in the intervention group, 31 participated in at least one session. After each session a questionnaire was distributed asking how often participants had used strategies from the session (1-never, 5-very often; yes/no), if they were satisfied with the session and how they perceived the program's relevance (1-5 agree to a large extent).

Results: The intervention consisted of six group sessions containing psychoeducation, group reflections, exercises, and a follow-up. The first two sessions focused on the manager's recovery, including evidence-based strategies for sleep and recovery behaviors. The subsequent sessions focused on how managers could promote sleep and recovery among their employees. These sessions were based on the principles of organizational behavior management and considered the interplay between contextual and organizational factors hindering or facilitating behavioral change. The importance of managers' change-management strategies (e.g. delimiting action plans, approaches to communication and evaluation) was also stressed. Preliminary analysis of the questionnaires sent out after each of the first five sessions (response rate 58-78%) showed that participants were satisfied with the sessions and that they found them relevant, both for themselves and for first-line managers in general (means varied around 4.0-4.4). Most of the participants tried different strategies related to their own sleep and recovery, such as a routine for unwinding, mindfulness, and activities supporting their circadian rhythm and the homeostatic processes for sleep. When it came to supporting their employees' recovery, many (89%) involved their employees in this work. However, at the time of the surveys, fewer had made an action plan (36%) and about half of the participants had identified hindrances to implementing the action plan.

Conclusion: The program was feasible and was well-received among participating first-line managers. However, there are indications of hindrances in implementing the action plans supporting employees' recovery, which highlights the need for deeper understanding of how the intervention worked.

From Voice to Action: Development of a Grounded Theory of How Managers' Work Environment Problems Are Heard and Addressed (Andrea Eriksson, Mahwish Naseer & Lotta Dellve)

Introduction

Research indicates associations between the declining psychosocial working conditions and poorer health in public organizations (Aronsson, 2022; Marklund, 2023). Conversely, lower levels and decreasing trends of employees' sickness absence and turnover are indicated where line managers have less work overload, have a listening superior and organizational support (Dellve et al 2019, 2024). Thus, there is a need to focus on improving managers' working conditions, including developing the capability to voice concerns about the work environment.

Aim

To identify conditions that contribute to managers' work environment problems being recognized and addressed.

Methods

The city of Gothenburg has decided on major improvement efforts for managers' working conditions in all sectors. This study focuses on analyzing experiences from the improvement of work in selected sectors that fulfilled the program. Data collection comprises semi-structured interviews with 45 participants, including directors (15), process leaders (10), second- (9) and first-line managers (7), and key support functions (4). Interviews were analyzed according to principles of Grounded Theory (Charmaz, 2014).

Results

The Grounded Theory analysis identified a core process through which managers' work environment problems became heard and addressed: a recursive *voice–sensemaking–action loop*. Three interlinked conditions were identified as critical. First, *conditions for voice* were created through leadership interest, structured methods, and facilitated dialogue that legitimized managers' experiences and provided a shared language. Second, *conditions for being listened to* depended on collective sensemaking—shared problem definitions, relevance to current organizational concerns, and abilities to translate diverse inputs into credible and clear priorities. Third, *conditions for action* emerged when leadership ownership, transparency, role clarity, and integration into existing governance (e.g., budgeting and follow-up systems) transformed voiced concerns into implemented measures. Relying on the continuity of feedback and visible responses was crucial for maintaining trust and participation, while a culture of silence, uncertainties, fragmentation, and lack of follow-up disrupted the loop.

Conclusions

Managers' work environment problems were addressed not through isolated interventions but through an ongoing, trust-based governance process. Listening, dialogue, and feedback were constitutive mechanisms enabling action. Sustainable impact required leadership commitment, integration into core management systems, and sensitivity to contextual and individual variation.

Should I Speak or Remain Silent? Voice Climates Across System levels in Public Organization and Employee Wellbeing (Mahwish Naseer[1], Andrea Eriksson[2], Lotta Dellve[1])

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Introduction: Effective, safe, and functional communication is essential for healthy working conditions and a sustainable working life. Remaining silent in problematic work situations may increase the risk of burnout and negatively affect employee well-being. Although individual voice and silence have been studied, limited attention has been given to how perceptions of voice climates at team and organizational levels influence employee well-being.

Aim: This study examines whether associations between individual silence or voice and employee outcomes (flourishing at work, burnout, and general well-being) are moderated by team voice, and whether organizational voice climate further conditions these relationships.

Materials and Methods: Employees in Swedish public organizations were randomly selected to participate in a survey conducted in 2024 (response rate = 33%). Survey responses (n = 1,712) were linked to register-based data. Outcome variables included flourishing at work, general well-being, and burnout. Independent variables were individual silence and voice tendencies. Team voice and organizational voice climate were included as moderators. All models were adjusted for sociodemographic characteristics, tenure track, and union membership. Moderated moderation analyses were conducted using Hayes' PROCESS macro based on ordinary least square regression.

Results: The findings showed that a higher degree of organizational voice climate strengthened the buffering effect of team voice on the negative association between individual silence and flourishing at work. Organizational voice climate also moderated the effect of team voice on the association between silence and burnout, indicating that voice resources at higher organizational levels can mitigate adverse effects of individual silence. No corresponding effects were found for general well-being. Moderated moderation models were not significant for individual voice in relation to outcome variables.

Conclusions: These findings highlight the importance of fostering voice climates to mitigate adverse effects of silence and protect employee well-being. Consistent with a systems perspective, silence and voice spread over individual-, micro- and meso-levels, i.e. voice at team and organizational levels can reduce the negative impact of employee silence on flourishing and burnout. However, more knowledge is needed of how and when organizational voice climate can strengthen individual voice behavior.

Session 3: Organizational Systems & Care Processes

Cost consequences analysis of occupational accident: Balancing fee-for-service models with cost containment strategies

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Objective: The way health care for occupational injury claims is financed in Indonesia, generally following a fee-for-service model, produces large variations in costs with inefficiencies that differ across regions in Indonesia. This study investigates the cost consequences of utilizing a fee-for-service model for occupational health care, while investigating potential interventions to balance cost containment with quality of service.

Methods: A retrospective study of occupational injury cases in Indonesia from 2015 to 2022, we assess diagnosis codes, treatment costs, and region associated cost variability. A machine learning algorithm is utilized to cluster diagnoses to reduce variability, and stochastic frontier analysis is used to assess cost efficiencies. To assess cost trends, we utilized a difference-in-differences approach to compare high vs. low reimbursement dependency groups.

Results: Average costs for outpatient cases were $743 with substantial variability associated, including a maximum for traumatic amputation of $6,256. There were also differences across regions, with an average of $5,726 in Papua. The diagnostic grouping achieved a 20% reduction in variability, while the estimated increase in costs was highest for regions characterized by high reimbursement dependency where average cost increased to $2,246.

Conclusion: Occupational injury health care costs associated with a fee-for-service model are associated with substantial variability and inefficiencies across regions. Policy development should transition to standardized tariffs informed by regional cost patterns and diagnostic profiles, to achieve sustainable and equitable health care financing. Therefore, further research is needed to evaluate the impact of this strategy on long-term cost containment and patient outcomes.

Keywords: Occupational Injury, claims, fee-for-service, cost-consequence, health care

An explorative study of the operationalization of patient flows at hospitals (Peter Almström, Philip Åhlin, Carl Wänström)

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Introduction

Hospitals face increasing pressure to meet rising patient demand with constrained resources, which makes effective patient flow a central operational challenge. Although patient flow has been studied from several perspectives, there remains limited knowledge about how it is operationalized in daily practice and how planning and control decision-making supports responsiveness in hospital operations.

Aim

The aim was to examine how hospitals allocate decision-making authority to manage patient flow by identifying which operational decisions are made, where they are made, and by whom during routine daily work.

Material and Methods

An international multiple-case study was conducted in five leading academic hospitals. Data was collected through site visits and semi-structured interviews with managers and healthcare professionals. In total more than 150 interviews.

Results

The findings indicate that hospital planning and control differ from manufacturing-based models. Rather than operating through a strict top-down hierarchy, hospitals manage flow through continuous adjustments, including reallocating resources such as beds, staff, and rooms across units and reprioritizing patients in response to shifting demand and capacity. Decision-making is frequently decentralized to enable timely action close to clinical work and to support patient safety. At the same time, centralized coordination is also used, for example through command centers that provide an overview and facilitate coordination across interdependent units. Based on these observations, a framework is introduced that extends traditional production planning and control by combining locally aggregated resource rebalancing with centrally detailed patient reprioritization.

Conclusions

Hospitals appear to sustain patient flow by balancing professional autonomy with selective central coordination. The proposed framework clarifies how this balance can support responsiveness under volatile demand and tighter financial conditions. The study also contributes to operations management by conceptualizing central coordination as facilitative and trust-based rather than purely hierarchical control.

Step-down intermediate care (Rebecca B.F Gantriis, PhD student, Kasper Edwards, supervisor)

Background:
Step-down intermediate care plays a central role in contemporary healthcare systems by enabling early hospital discharge and continuity of care for patients with complex needs. Despite its growing scale and policy relevance, the core task of intermediate care remains functionally unclear. In many Beveridge-type health systems, it has evolved as a hybrid function between hospitals and community care, operating under divergent organisational logics and legislative frameworks. This ambiguity raises questions about how responsibility, authority, and clinical tasks are constituted across sector boundaries.

Aim:
To provide a ground-level understanding of how the task of step-down intermediate care is constituted at the interface between hospitals and community-based temporary stays (TSs) in Denmark.

Methods:
We employed a qualitative multi-method design informed by the Value-Adding Analysis Framework. Data were collected between 2023 and 2025 and included interviews with TS managers, focus groups with TS staff, in-hospital observations of discharge practices, informal conversations with hospital professionals, and cross-sectoral workshops. David Brown's theory of organisational interfaces served as a sensitising framework.

Results:
Step-down intermediate care is constituted through an asymmetrical interface between an over-organised hospital system and under-organised community services. Core task criteria – medical completeness, patient eligibility, and diverging care goals – remain unstable and contested. While hospitals retain authority over discharge decisions, TSs absorb residual clinical and organisational complexity without a corresponding mandate or infrastructure.
Drawing on Brown's theory, coordination relies on extensive interaction in the absence of structural linkage. Continuity is produced through informal, labour-intensive boundary-spanning practices rather than integrated organisational arrangements. We conceptualise this mode of stabilisation as *elasticity by the metre*: a situational, non-structural form of coordination that temporarily absorbs organisational tensions but remains vulnerable to fatigue.

Conclusion:
Step-down intermediate care does not function as a bounded organisational entity but as a continuously negotiated interface shaped by divergent logics, regulatory gaps, and unequal authority. While frontline actors attempt to sustain the shared task through compensatory coordination, this elasticity is fragile and obscures systemic responsibility and oversight. Clarifying the task of intermediate care requires policy and organisational attention to the interface itself, including alignment of mandates, infrastructures, and accountability across sectors.

Session 4: Work Environment, Ethics and Professional Practice

Ethical encounters in the pediatric operating room – Operating Room Nurses lived experiences

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Introduction

Ethics are the foundation for actions and attitudes in various situations, based on socially accepted patterns. Operating room nurses (ORNs) are expected to adhere to ethical guidelines established for their professional practice. Clinical ethical dilemmas may arise when ORNs encounter challenges during surgical procedures, when nurses participate in procedures that conflict with their personal or moral convictions. Situations in which ORNs witness violations of patient dignity or hinderers from providing the desired standard of care. Findings of research within the ethics context are sparse in pediatric surgery. Often targeting disappointment with care, avoidable complications or death, unnecessary child mistreatment assessments, clinician bias, cultural confusion etc. To shed light on ethical challenges this study seeks to gain a deeper understanding ORNs encounter in the pediatric OR context, their lived experiences of ethical challenges.

Aim

The aim of this study was to understand operating room nurses who lived ethical challenges when entering a human encounter or caring relationship in a pediatric operation room.

Methods

The study design is an empirical qualitative study with an inductive/abductive approach, as the aim of the study was to explore the experiences of ORNs. Ten ORNs wrote an ethical challenge they had experienced as ORN at a pediatric operating unit. The free texts were analyzed with a six-phase thematic analysis approach.[1,2]

Results

The preliminary themes found provided insights into the complexity of perioperative care and the ethical considerations that underpin professional practice. Themes found were Vulnerability and advocacy safeguarding for the pediatric patient, Communication barriers and cultural sensitivity, Parenteral involvement and emotional support, Professional responsibility and interdisciplinary collaboration, Respect for patient autonomy and emotional safety, and Compassionate care in end-of-life and donation contexts.

The ORNs often encounter situations where parental involvement is limited, placing additional responsibility on the healthcare team to provide emotional support.

Furthermore, the balance between clinical necessity and the child's autonomy is delicate, particularly when procedures are resisted or misunderstood by the patient.

Conclusion

Ethical reflections from paediatric ORNs highlight the significance of person-centered care, family engagement, and professional integrity.

Stakeholders' perspectives on quality indicators in Norwegian nursing homes – Qualitative findings from a Delphi study (Kjerstin Tevik1,2, Sigrid Nakrem1, 3)

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Introduction

Monitoring nursing care quality using quality indicators has gained increasing interest in organizations. However, little is known about how to develop meaningful measures from diverse stakeholders' perspectives, and how indicators may influence daily work practices.

Aim

To examine stakeholders' perspectives on a proposed set of quality indicators for Norwegian nursing homes and discuss how perceived relevance and feasibility may affect healthcare professionals' working conditions and the organization of care.

Material and Methods

Twenty-two participants (six researchers, eight healthcare personnel, eight relatives) provided written comments on 20 proposed quality indicators as part of a Delphi study. Data was analyzed using thematic content analysis.

Results and Discussion

Five themes were identified:

1. Risk. High-risk indicators (oral health problems, medication review, restraint use, dehydration, behaviors affecting others) were considered highly important by all participants. By clarifying priorities and accountability, these indicators may reduce moral distress and support safer and more consistent care.
2. Volume. Common conditions (decline in activities of daily living, incontinence, depression, weight loss) were viewed as less useful to measure, as their prevalence often reflects disease progression or natural aging rather than care quality. Participants noted that such indicators may have limited value for driving quality improvement.
3. Variation. Preventable conditions (falls, pressure ulcers, new-onset urinary incontinence, constipation) were regarded by researchers and healthcare personnel as important indicators that can guide team efforts and reduce unwarranted variation in clinical practice.
4. Non-clinical indicators. Social participation and meaningful activities were seen as essential but difficult to measure and implement consistently. Under conditions of limited time and staffing, these indicators may create tension between practice demands and efforts to provide person-centred care.
5. Assessment and documentation. Assessing pain, depression, and functional status was perceived as challenging by health care professionals and researchers, highlighting the need for validated tools and adequate staff training. Limited use of such tools can delay detection and increase workload.

Conclusion

In nursing homes quality indicators can support systematic quality improvement. Quality indicators that are clinically relevant and feasible to use, combined with access to validated assessment tools, may enhance prioritizing and promote more sustainable working conditions.

Patient Safety and Triage in Primary Care: Insights for Leadership in Digital Health
(Edith Karjalainen, Petra Svedberg, Elin Siira, Jens Nygren)

Background

Digital triage tools are increasingly used in primary care to support patient assessment, intify those with urgent needs, and manage patient flow. While these tools can improve efficiency, accuracy, and timeliness, they also introduce potential risks related to assessment errors, system design, and disruption of existing care processes. Mapping the current scientific literature on how different forms of triage, including digital triage, affect patient safety is therefore essential to help **healthcare leaders** understand these risks, make informed decisions, and guide safe implementation in practice.

Aim: The aim of this study was to map the current scientific literature on patient safety and triage in primary care and to examine how patient safety is influenced by various forms of triage.

Methods: This scoping review included four scientific databases: the Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, Scopus, and the Web of Science Core Collection. Searches were conducted in April 2025 to identify publications relevant to the study aims. Search terms included a combination of terms for patient safety, triage, and primary care as well as their synonyms. Articles were included if they were written in English, peer reviewed and published after 2015. Three independent reviewers conducted abstract and full text screening. Followed by analysis using an inductive approach. Ten articles published between 2015 and 2025 met the inclusion criteria. The review was reported in accordance with the PRISMA-ScR guidelines.

Results: The review identifies key patient safety outcomes associated with triage in primary care, examines how patient safety is described within digital triage processes, and explores how different forms of triage influence safety. Preliminary results highlight the complex relationship between triage processes and patient safety in primary care. The findings summarise current evidence based and highlight significant gaps in the literature.

Conclusions

While digital triage applications offer potential benefits in efficiency and access to care, important patient safety concerns remain insufficiently addressed. The findings underscore the need for further empirical research to evaluate safety outcomes and to inform the safe implementation of digital triage systems in primary care.

Session 5: Digital Leadership & Transformation

Leading digital work for sustainable healthcare: What matters for frontline professionals' wellbeing?

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Introduction: Digitalisation in healthcare seeks to improve operational efficiency while maintaining quality of care, yet it introduces tasks that can increase job strain. This calls for e-leadership: a social influence process where line managers successfully guide digital work and leverage digital tools to lead remotely. Evidence on staff perceptions of how e-leadership is realised in practice, and whether it supports a healthy work environment, remains limited.

Aim: To examine e-leadership from frontline professionals' perspective and its associations with wellbeing at work (engagement, satisfaction, digital stress).

Methods: A cross-sectional survey was conducted in three Finnish wellbeing service counties (June–August 2025). To measure realisation of e-leadership, we used the eLead scale, developed and validated by our team. Respondents (n=667, 65% nurses) rated 19 e-leadership practices. Mean scores (1=very poorly–5=very well realised) were calculated for five dimensions: 1) *digital development*, 2) *competence support*, 3) *resource management*, 4) *promotion of wellbeing/inclusion*, 5) *communication*. Associations between e-leadership dimensions and three wellbeing outcomes were analysed using multivariable linear and logistic regressions; only dimensions 3–5 were included simultaneously to address multicollinearity. Models were adjusted for profession, graduation year, and digital skills.

Results: Mean scores for five dimensions ranged from 3.3 (promotion of wellbeing/inclusion) to 3.9 (communication), with SD=0.9. Better resource management was associated with engagement (b=0.25, 95%CI [0.10, 0.42]), satisfaction (OR=1.79, 95%CI [1.23, 2.59]), and lower digital stress (b=−0.30, 95%CI [−0.42, −0.18]). Better promotion of wellbeing/inclusion was associated with engagement (b=0.31, 95% CI [0.14, 0.48]) and satisfaction (OR=1.74, 95%CI [1.19, 2.52]). Better communication was linked to satisfaction (OR=1.37, 95%CI [1.01, 1.87]).

Conclusions: The eLead scale provided a practical tool to assess professionals' perspectives and insights into e-leadership practices that promote wellbeing at digital work. E-leadership was perceived as moderate rather than excellent, pointing to areas of development. Resource management was consistently associated with wellbeing; thus, realistic scheduling, upgrading to well-functioning devices and ensuring access to technical support should be prioritised. Findings also suggest improving promotion of wellbeing and inclusion through organising wellbeing check-ins and in-person team meetings, establishing channels to discuss stressful situations encountered in digital client work, and advocating fair remote work opportunities.

Health care practitioners' productivity in public digital clinic visits increases with experience (Vivi Mauno)

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Background

The opportunities for patients to visit Finnish public healthcare through a digital clinic have increased dramatically in the last years, as has the number of healthcare practitioners working part time or even full-time in digital clinics. However, there are knowledge gaps in research regarding how the health care practitioners' productivity changes when they gain more experience in working in the digital clinic, and how the type of patient's healthcare needs reflects on the change of the productivity.

Methods

Finnish public primary care digital clinic data from the region Päijät-Häme was extracted from years 2023-2025 to describe the users, healthcare practitioners and visits of digital clinics on a detailed level. The patient characteristics, visit types and practitioners experience were described, as well as the length and amount of concurrent of digital clinic discussions, stratified by the digital clinic work experience of the healthcare practitioners.

Results

Between 04/2023-08/2025 a total of 165 097 primary care digital clinic visits were found for 47293 patients, 30342 (64.2 %) of which were female. The mean age of patients was 43.1 (median 41), and 35979 (76.1 %) were living in an urban municipality. 9839 (20,8 %) had acted on behalf of a family member in the digital clinic. For these patients and visits, 453 healthcare practitioners were found with the following working experience groups in a digital clinic: 0-90 days: 11 practitioners, (2.4 %); 91-180 days: 17 (3.8 %); 181-270 days: 36 (8,0 %); 271-360 days: 33 (7.3 %); 361 or more days: 355 (78.4 %). The median length of a digital clinic discussion for these groups was 27.5, 26, 32, 31 and 28 minutes, respectively. The practitioners were also divided to experience categories based on the number of digital clinic discussions they had had during the study period: 1-10, 10-50, 50-100, 100-400, 400-1200 and 1201 or more. The median length of the digital clinic discussion for these groups was 29, 25, 29, 36, 26 and 29 minutes, respectively. In addition the number of concurrent discussions were analyzed per hour for the most experienced group and all groups together. The mean number of concurrent discussions per hour was 12.31 (median 3) for all healthcare practitioners and 12.30 (median 11) for the most experienced group (over 1201 visits experience).

Conclusion

Our findings suggest that health care practitioners accumulated experience working in the digital clinic is associated with higher productivity in the digital clinic. However, these results may be specific to this public primary care digital clinic, where the patient population is predominantly working age, female, and living in urban areas.

Register-based process mining to discover and analyze health care trajectories of patients admitted to Danish municipal temporary stay facilities

(Mahan Rajaeigolsefidi[1], Rebecca Futtrup Gantriis[1], Kasper Edwards[1], Kathrin Kirchner[1])

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Introduction

Municipal temporary stay (TS) facilities serve as intermediate care units in Denmark, bridging the gap between hospital and home for older adults with complex needs, yet current evidence on these populations relies largely on static aggregate statistics, which fail to capture the temporal dynamics and sequential complexity of patient journeys across sectors. Process mining offers a process-oriented alternative, but its application to Nordic registries remains limited.

Aim

To demonstrate how register-based process mining can be operationalized on linked Danish registries to reconstruct longitudinal cross-sector care trajectories and to answer service- and clinically relevant questions by visualizing and profiling: (i) global trajectories, (ii) TS-proximal segments preceding first TS admission, and (iii) peri-TS care sequences.

Material and methods

We applied process mining on register data of 11,406 patients admitted to TS in 2016–2023. Using individual-level linkage, we constructed event logs covering home, care home, hospital, and TS activity from 12 months before first TS admission until death or end of follow-up (April 4, 2024).

Results

Over the full observation window, trajectories were dominated by repeated hospital contact and frequent transitions between home and hospital, with increasing care home involvement after the first TS episode and substantial mortality. In the TS-proximal lead-up, acute inpatient activity showed strong time concentration in the weeks preceding first TS admission. For 67% of patients, all acute inpatient episodes in the pre-admission year occurred within the immediate TS-proximal window. TS-proximal segments were typically brief and transition-dense, indicating clustered escalation rather than gradual accumulation of hospital use before first TS admission. The TS episode itself was characterized by high clinical instability, with 42.9% of episodes interrupted by hospital care and 13.1% ending with acute readmission. Acute readmissions during or immediately after TS showed low diagnostic concordance with the precipitating hospitalization and frequently introduced new diagnostic chapters. Compared to the index diagnosis, infections, respiratory, and metabolic complications were prominent among newly observed diagnoses during and after TS.

Conclusion

This proof of concept demonstrates that process mining can be operationalized on linked Danish (Nordic) registries to reconstruct coherent multi-organization trajectories, supporting intermediate care planning and cross-sector decision making.

The digital work environment and the challenges of procurement in Swedish municipal care (Christofer Rydenfält[1], Roger Larsson[1] & Elizabeth Bjarnason[2])

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[2]*Department of Computer Science, Lund University, Lund, Sweden*

Introduction

Healthcare is currently undergoing an extensive digital transformation. Technology is assumed to solve many of the challenges that healthcare is facing. While the benefits are perceived as grand, it is apparent that this digitalization also comes with challenges, including usability issues and poor workflow integration. What is striking is that these challenges often involve issues that, from a strict interaction design perspective, are avoidable. Thus, we wonder, why healthcare providers procure the digital systems they do? *In this qualitative study we explore the challenges associated with procurement of digital systems used in municipal care from the perspective of health and safety requirements. We also discuss how these challenges could be overcome.*

Material and Methods

Semi-structured interviews were conducted with 21 participants involved in public procurement of digital systems for municipal care organizations. The interviews were conducted face-to-face or over video calls. All interviews were recorded and transcribed. The data was analyzed thematically.

Results

Three main themes were identified describing overarching challenges. The first theme, *to procure systems that meet actual needs on a dysfunctional market,* involved the need to lower requirements to match the offers on the market. For softer requirements such as usability requirements, it was also hard to see the correspondence between what was specified and what was delivered. The second theme to *specify requirements that convey the actual needs in a clear and complete way,* involved lack of procurement experience and biases in the requirements formulation. The latter, often due to insufficient end user involvement or too much focus on requirements that were borrowed from other procurement processes. The last theme, *to evaluate tenders when the systems offered do not exist yet,* came from the fact that some of the systems procured did not exist at all, or not in the configuration procured. Thus, they could not be evaluated during the procurement process.

Conclusions

To improve the digital work environments in Swedish municipal care, the limitations put by the current market conditions must be considered and user-centered design methods involving end users needs to be integrated into the procurement and requirements formulation process.

Session 6: Nursing Work & Work Environment

Quality of care in relation to work organization among Finnish home care employees: a sequential explanatory mixed-methods study

(Salla Ruotsalainen[1], Henrika Karhulahti-Nordström[1], Visa Väisänen[1,2], Timo Sinervo[1])

[1]Finnish Institute for Health and Welfare, Welfare State Research, Processes and Policies team

[2]University of Eastern Finland

Introduction

New ways of organizing work have been implemented in the Finnish home care to curb with economic restraints and increasing care needs of older people. These include, e.g., self-organizing teams and systems to optimize routes and increase direct care time. These, however, may lead to opposite effects. AI systems optimizing work division may decrease the autonomy of teams. However, previous studies have shown that team climate, and leadership, such as transformational leadership and organizational justice, are related to higher quality of care (QoC). These are also needed in order for the benefits of teamwork to emerge.

Aim

The aim of this study was to explore the associations between Enterprise Resource Planning (ERP) systems, leadership, and teamwork on employee rated QoC in the Finnish home care units, and to determine how employees perceive the QoC in relation to work organization at their workplace.

Material and Methods

Mixed-methods study, with a sequential explanatory design. Survey and semi-structured interviews for practical nurses working in home care. Survey data was analyzed using multiple linear regression, and interview data using thematic analysis.

Results

The results from the quantitative survey indicated that use of ERP systems, higher team autonomy, transformational and fair leadership, more stable team, and higher team climate were associated with higher QoC. Themes that emerged from the qualitative analysis were e.g., Altering visits for better client-centeredness, Substitute workers decreasing care quality, Information flow, and Teamwork.

Conclusions

ERP systems function should improve the QoC, not the other way around. The employees sometimes altered the lists to better meet the needs of the clients, if they were unsatisfied with the list created by the ERP system. On the other hand, ERP was a useful tool in information management, since sometimes there were severe defects in the information flow that compromised the QoC. Both analyses also highlighted familiarity of clients, and knowing one's clients. This can be linked to substitute workers who were perceived as decreasing the care quality and not knowing the clients and their habits. Teamwork should be further enhanced to improve the QoC.

Organizational commitment, psychological stress, and quality of care in older people's assisted living with 24/7 assistance - The effect of job demands and resources (*Timo Sinervo, Salla Ruotsalainen, Visa Väisänen, Antero Olakivi)*

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Background

The newly (2023) launched wellbeing services counties, in charge of organizing services, are facing severe economic challenges and have increased the criteria for accessing care. Thus, in assisted living services, the clients are more dependent. Simultaneously, the staffing levels have decreased. There are problems in both care quality and care worker well-being. Earlier evidence shows that work stress, teamwork, leadership and organizational commitment are related to job performance and care quality. Theoretical background can be derived from Karasek's job demand-control-support model as well as the job demand-resources model.

The aim of this study was to examine the determinants of work stress, organizational commitment and care quality among care workers in Finnish older people's assisted living services with 24/7 assistance.

Method

The study used a personnel survey, merged to work unit level information of client case mix and clinical quality of care (RAI-resident assessment instrument) and descriptive data (staffing levels, unit size, public or private ownership). The data included 83 work units in 42 work organizations with 495 employees. The survey instruments of the dependent variables were mental health instrument (describing psychological strain), organizational commitment, care quality assessed by employees and clinical quality (RAI-assessment). The instruments of the independent variables (demands) were time pressure and ethical burder. The instruments of the resources were autonomy, skill variety, transformational leadership, organizational justice, and participative safety in team. The data were analysed using linear regression analysis. The data on clinical quality will be available in spring.

Results

The analyses showed that organizational commitment, psychological strain, and employees' perceptions of care quality were associated mainly to similar factors: skill variety, participative safety in teams, and organizational justice. In addition, autonomy was related to organizational commitment and time pressure to care quality. Social support was related to psychological strain.

Conclusion

The results of this study showed that organizational commitment was related more to motivational factors. The demands were related to both care quality and psychological strain. The results are in line with earlier studies.

Work Environment, Well-Being, and Job Security among International and Icelandic Nurses in a University Hospital Setting (Eygló Ingadóttir, Sigrún Gunnarsdóttir, Haukur Freyr Gylfason, Helga Bragadóttir and Ólafur G. Skúlason)

Introduction
The hospital work environment plays a crucial role in nurses' well-being, and recent studies indicate that internationally recruited nurses experience higher levels of stress than locally trained nurses, placing them at increased risk of psychological distress. The healthcare system in Iceland is increasingly dependent on international nurses, yet limited evidence exists on how their work environment, well-being, and professional security compare with that of Icelandic nurses.

Aim
To compare job satisfaction, well-being, perceived managerial support, quality of nursing care, and job security among Icelandic and internationally recruited nurses at Landspítali – University Hospital.

Methods
A cross-sectional electronic survey was distributed to all registered nurses at Landspítali – University Hospital (n = 2,150). The questionnaire, available in Icelandic and English, included demographic items and validated measures of work environment (NWI-R subscales), job satisfaction, and physical and mental health. Group differences were analysed using chi-square tests and independent t-tests.

Findings
A total of 490 nurses responded, including 44 internationally recruited nurses (9.1%). Job satisfaction did not differ between groups. However, international nurses reported significantly higher psychological distress ($p = 0.003$) and more physical limitations ($p < 0.001$). No significant differences were found in perceptions of managerial support or quality of nursing care. International nurses reported lower job security ($p = 0.003$) and perceived fewer opportunities to obtain another suitable nursing position ($p < 0.001$).

Conclusions
Although job satisfaction was similar, internationally recruited nurses experienced poorer mental and physical well-being and reduced job security. These findings highlight the need for targeted organisational strategies, including structured onboarding, culturally responsive leadership, and enhanced support systems, to strengthen inclusion, well-being, and retention within an increasingly diverse nursing workforce.

The Impact of Early-Career Job Resources on Mid-Career Job Satisfaction in Registered Nurses (Julia Cederlund, Petter Gustavsson, Oili Dahl, Ann Rudman)

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Introduction: Nursing students are highly motivated to a career in the nursing profession, however research conducted in Sweden indicates that a fifth of all newly registered nurses (RNs) strongly intend to leave the profession. Additionally, stress and burnout are pressing issues the first five years in the profession. To create sustainable work environments, it is essential to have a clear understanding of the key factors that influence employee well-being and satisfaction, as well as deeper knowledge of their long-term effects.

Aim: To investigate early-career job resources and their long-term association with job satisfaction at years 5, 10, and 15.

Material and Methods: Data from the LANE study (*Longitudinal Analysis of Nursing Education/Entry into Work Life*) was used (n=1702). Job resources were measured annually the first 4 years in the profession as a RN, while job satisfaction was measured year 5, 10 and 15 post-graduation. The job resources were selected in accordance with the multilevel JD-R theory, and categorized into task, social or organizational resources based on the resource characteristic. Data was analysed using a multivariable logistic regression.

Results: Between 10% and 20% of RNs experienced the various job resources every year the first four years in the profession. Significant associations were found between 2 out of 4 task resources (role clarity, adequate staffing), 1 out of 3 social resources (support from superior) and 4 out of 4 organizational resources (fair leadership, competence development plan, opportunities for skill development, opportunities to increase responsibilities) and job satisfaction at 5 years in the profession. In addition, most associations found between levels of early job resources and job satisfaction 5 years after graduation, were also replicated 10 and 15 years after graduation. Further, experiencing the job resources all four years positively impacted the predicted probability of belonging to the group with high job satisfaction years 5, 10 and 15 in the profession.

Conclusion: Results from this study indicate that having presence of job resources early career has a positive effect on job satisfaction mid-career for RNs. However, very few RNs experience consistent presence of job resources during the first four years in the profession.

Session 7: Patient Safety, Care and Technology

Learning from practice: Expectations for AI implementation in wound care (Ellen Jaldestad[1*], Ebba Lindberg[2], Hanna Stenhamre[2], Ingrid Larsson[1])

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Introduction

Chronic wounds are a major health problem among the elderly population in regards of both a humanistic and economic perspective. There are several challenges for healthcare professionals working with wound care, such as ergonomic challenges and limited resources. To address some of these challenges and with the aim of streamlining the care process, digital and AI-based tools are being implemented in various parts of the healthcare sector. An ongoing research project investigates expectations regarding opportunities and challenges related to the implementation of AI-based tools in wound care.

Aim

The current study focuses on the implementation of new digital tools and how these may affect the perceived work environment, professional role, and opportunities to shape and change work using new digital tools. A long-term goal of the project is to contribute to the development of tools and working methods where AI and digital tools can help streamline work, simplify communication between healthcare providers, and contribute to increased patient safety.

Methods

In this qualitative study, semi-structured interviews are conducted with managers, nurses and assistant nurses within Swedish primary care and municipal care. The interviews are built around two fictional cases about how digital tools can support clinical work with wound care at health centers as well as in home care settings.

Indications

In this oral presentation, preliminary results from the interviews as well as the study design and AI-cases will be presented and discussed at the conference.

Computer vision-based markerless human pose estimation for measuring knee range of motion in walking (Thomas Hellstén[1,*], Jonny Karlsson[1,*], William Westerback[1], Leo Laine[1])

Affiliation: [1]Arcada University of Applied Sciences, School of Engineering, Culture and Wellbeing, Helsinki, Finland, *equal contribution

Introduction: Digital practice in physiotherapy is becoming increasingly popular, making rehabilitation more accessible from home while reducing the work burden on healthcare professionals. Computer vision (CV)-based markerless human pose estimation (HPE) could play a significant role in this transition, as it allows clients to use their own devices without requiring specialized equipment or clinical presence. However, the accuracy of HPE models for clinical use is still being explored, particularly for dynamic movements like walking, which is a cornerstone of functional assessment. This study uses YOLOv11, a cutting-edge model promising for this purpose because it combines high-speed, real-time tracking with high precision.

Aim: The aim was to evaluate the accuracy of the YOLOv11 HPE model for measuring knee range of motion (ROM) during walking.

Material and Methods: A CV prototype application was developed to calculate knee ROM from a live camera stream using the YOLOv11 HPE model for knee, hip, and ankle joint localization, and the law of cosines for angle calculation. Knee flexion was measured in 20 healthy young adults (9 females, 11 men, mean age 24.1) during the mid-swing and initial contact phases of walking. To evaluate accuracy, the CV prototype application's calculated knee ROMs were compared against manually measured angles from the exact same picture frames. Manual reference angles were derived by drawing lines between markers placed on the greater trochanter, lateral epicondyle, and lateral malleolus. Agreement between methods was assessed using Bland–Altman plot analysis.

Results: The mean difference between the prototype and manual measurements during the mid-swing phase was -4.5°, with 95% limits of agreement ranging from -14.8° to 5.8°. At initial contact, the mean difference was 5.7°, with 95% limits of agreement ranging from -2.1° to 13.5°. No outliers were identified in either measurement set.

Conclusions: This study demonstrated clinically acceptable accuracy for gait analysis regarding knee flexion. Remote CV-based markerless HPE gait assessment could reduce the need for in-person gait analysis sessions improving healthcare professionals' working conditions through reduced routine work and travelling. This potentially allows clinicians to see more patients while maintaining high-quality assessment, helping healthcare organizations to work more efficiently and sustainably.

Remote patient monitoring in cardiovascular care: exploring tasks and responsibilities

(Mariel Taxén[1], Filippa Anchér[2], Pamela Mazzocato[3,4], Carolina Wannheden[3])

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Introduction

In Sweden, approximately 2.2 million people live with some form of cardiovascular disease, and the number of affected individuals is expected to increase. For the healthcare system, this represents an added strain on an infrastructure already challenged by workforce shortages and financial constraints. As part of a regional innovation program, remote patient monitoring (RPM) has been implemented as a pilot project in region Stockholm. This involves monitoring patients with various conditions, including cardiovascular disease, by allowing them to perform their own measurements at home. This represents a redistribution in which tasks such as ECG and blood pressure measurements are carried out by the patient instead of by clinical staff. While this may contribute to improving resource utilization within the healthcare workforce, it may also introduce uncertainties regarding both healthcare professionals' and patients' roles and responsibilities.

Aim

The aim of this study is to describe how tasks are shifted and shared when using RPM, and to explore how healthcare professionals and patients experience their tasks and responsibilities related to RPM.

Method

The study uses a qualitative explorative design involving observations of work routines and semi structured interviews with newly diagnosed heart failure patients during titration of heart failure medications (approx. 10-15) and healthcare professionals (approx. 5) at one of the hospitals piloting RPM. Data collection began in the spring of 2025 and will be completed in early 2026. Data will be analyzed using inductive content analysis.

Preliminary results and conclusions

Data collection is ongoing with analysis to be completed in spring 2026. Preliminary findings from patient interviews indicate positive reception of RPM, with participants demonstrating confidence in their self-monitoring tasks and responsibilities. Ongoing analysis will further explore patient and staff experiences, contributing to insights on how tasks and work processes related to RPM can be optimized to promote a sustainable healthcare system and healthy workforce environment.

Session 8: Sustainable leadership and Welfare Technology

Climate leadership? Managers' approaches to the task of reducing emissions (Linda Sturesson Stabel1 and Pamela Mazzocato1,2)

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[2] Södertälje Hospital, Department of Research and Development

Introduction

For reducing healthcare's substantial greenhouse gas emissions, managers are described to have crucial positions and roles, and leadership has been concluded to be a key. Studies further show that clinical staff repeatedly report barriers related to leadership which hinders them from acting for climate within their professional role and at their workplace. However, how managers reason and approach their task of reducing emissions, and enacting leadership towards a greener healthcare organization is yet underexplored in the research literature.

Aim

Given healthcare managers' positions and roles, and leadership being described as a key to reducing the sector's substantial greenhouse gas emissions, this study focuses on leadership, more specifically it aims to explore how managers reason and approach the task of pursuing healthcare's green transition.

Material and Methods

A qualitative study design was employed, and 24 managers were interviewed, 15 top managers and 9 line managers. All had a position at the same hospital but thus represented two levels in the organizational hierarchy.

Results

We found that the managers reasoned and approached the task of reducing the hospital's emissions in various ways: passive distant, cautious, pragmatic, and/or proactive close. Approaches overlapped to some extent, and those being passively distanced or proactively close usually also had a pragmatic and cautious approach.

Conclusion

Although leadership is widely described as key to reducing healthcare emissions, and managers may hold formal mandates and tasks, not all enact what could be labelled "climate leadership". The results illustrate how climate leadership unfolds in practice and highlights the need for managers to reflect on how they approach and assume leadership in the green transition.

Do Swedish first-line eldercare managers feel reciprocated for their work efforts and are their feelings associated with self-reported workability and intentions to change employer within the next two years? ([1]Roger Persson, [2]Gerd Johansson, [1]Tomas Jungert, [2]Linda Widar & [2]Christofer Rydenfält)

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[2]Department of Design Sciences, Faculty of Engineering, Lund University, Sweden

Introduction
The high turnover among Swedish eldercare managers may hamper continuity and the quality of eldercare services. The norm of reciprocity stipulates that individuals expect matching returns for their efforts (c.f. the effort-reward-imbalance model) and violations may cause negative emotions, bodily symptoms, disengagement from social relationships, including reduced work efforts and turnover.

Aim
To examine whether eldercare managers' feel reciprocated for their work efforts and if these feelings are associated with reports of workability and intentions to shift employer within the next two years.

Material and Methods
First-line eldercare managers (N=603, 88% women; mean=49 years, SD=10 years) who had completed a cross-sectional national survey were included. A validated statement "*Considering the effort you put in and what you achieve at work, you get the appreciation you deserve*" assessed feelings of reciprocity. Managers reporting that it applied very poorly or poorly were designated "non-reciprocated" (n=242) whereas those reporting that it applied well or very well were designated "reciprocated" (n=361). Item 1a from the Work Ability Index "*If you compare your current workability with your life time best, what score would you give your current workability; we assume that your workability at its best is valued as 10 points*" assessed workability on an 11-step scale with verbal anchors at the endpoints (0=completely unable to work and 10=workability at its best). The item "*Are you planning to change employer within the next two years*?" assessed turnover intentions on the scale: Yes, absolutely certain; Yes, fairly certain; No; I'm retiring.

Results
Circa 60% reported feeling reciprocated for their work efforts. Managers who felt reciprocated reported higher workability scores (Mean=8.0, SD 1.3) than non-reciprocated managers (Mean=6.9, SD 1.7), t-test (Δ=+1.1, 95% CI= 0.9-1.4, $p<0.001$). 6% intended to retire. 38% reported intentions to shift employer. Managers reporting "absolutely certain" (11%) or "fairly certain" (27%) had a higher likelihood of not feeling reciprocated (19% Vs. 4% and 36% Vs. 21%, respectively; $\chi 2$, $p <0.001$).

Conclusions
Productivity and retention may benefit from employers being attentive to the eldercare managers feelings of being reciprocated, that is, ensuring that managers receive and perceive appropriate appreciation for their work efforts.

Upskilling is the exception: why welfare technology more often reskills or deskills care work (Susanne Frennert1*, Katrin Skagert 2, 3)

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Introduction

In Swedish older adults' care, welfare technology is frequently presented as a response to demographic ageing and ongoing recruitment and retention challenges, and as a way to achieve more efficient care work. Welfare technology is commonly used as an umbrella term covering mobile documentation, care-planning applications, digital keys, remote monitoring and alarm systems and technologies intended to support activity (e.g., streaming services, robotic companions and virtual reality). Previous research shows that the introduction of welfare technology changes care roles and care practices. However, there is still limited understanding of whether and how welfare technology in care work builds skills, shifts skills or erodes valued care competencies.

Aim

This study explores how welfare technology reshapes everyday working conditions in older adults' care and how this, in turn, influences care workers' skill usage and skill development.

Material and Methods

We conducted eight vignette-based workshops with care workers from home care and nursing homes in four Swedish municipalities (n=45). During the workshop, extensive notes were taken. The field notes were analysed by Braun and Clarke's reflexive thematic analysis in order to identify how different socio-technical arrangements influence skill demands and care work practices.

Results

Through the analysis, we interpreted three ways in which welfare technology reconfigured skills in care work: upskilling, reskilling, and deskilling. *Upskilling* emerged in one home-care team where they used a unified, mobile-first workflow (integrated applications at the point of care combined with triaged alarms) which resulted in perceived support for coordination of care, professional judgement and continuity in care worker- care recipients relations. *Deskilling* was the more common way in which welfare technology affected skill usage and development. Patterns of fragmented documentation through parallel paper and digital documentation, unsynchronised systems, and high alarm loads were perceived as deskilling, as these conditions generated administrative "repair work," frequent interruptions and high cognitive overload. Participants said that the administrative repair work, the frequent interruptions, and the high alarm loads reduced time for relational care and contributed to moral strain, which we interpreted as deskilling. We also identified *reskilling*, which cut across settings, as care workers frequently mentioned that they took on roles as informal welfare technology facilitators to make the technology fit the patients. The participants also talked extensively about how they had to take on troubleshooter roles when it comes to the care recipients' own technology such as TVs, computers and mobile phones. As such, the care recipients' own technology introduced new, more technology-related roles for the care workers. Sometimes, this kind of reskilling strengthened the care workers' skills and role in the care organisation, if it was recognised and resourced. However, the role of troubleshooting the care recipients' own technology often drifted

toward deskilling when the troubleshooting demands accumulated without adequate organisational support.

Conclusions

In our qualitative study, only one out of eight teams of care workers worked within an upskilling configuration of work and the use of welfare technology. Unfortunately, most of the care teams reported deskilling configurations where welfare technologies functioned as sources of friction and cognitive overload. Our findings indicate that skill outcomes are configuration effects resulting from how welfare technology are integrated into organisational arrangements and care work routines. This is an important insight in the context of population ageing and workforce shortages, as welfare technology does not automatically deliver the politically portrayed efficiency gains. In our study, many participants described increased cognitive burden. At the same time, the "upskilling case" shows that the key issue is not the technology per se, but how welfare technologies are aligned with care workers, routines and organisational conditions.

Welfare techniques in use among elderly care employees and possible influence on work environment and care (Katrin Skagert* 1, Susanne Frennert2, Erica Nordlander 1, Mahwish Naader1, Lotta Dellve1)

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Introduction

Welfare technology has been described as enhancing safety and security for care recipients (e.g., social security alarms) by increasing awareness and fall detection (e.g., through fall sensors). It can assist employees in elderly care by managing their workload more effectively, allowing them to focus on providing personalized care for each care recipient. However, it can also contribute to a decline in the work environment if it fragments, automates, or dehumanizes the work. The sounds and signals from various alarms can lead to cognitive overload and so-called alarm fatigue, characterized by gradual desensitization and reduced responsiveness among employees. This increases the risk that alarm responses, and the seriousness of alarms will be downplayed or even ignored, which contradicts the primary goal of implementing welfare technology: to improve safety for the elderly.

Aim

The primary purpose of this study is to investigate the prevalence of welfare technology used by assistant nurses in elderly care, as well as its potential impact on the work environment and care of elderly care recipients in Swedish elderly care. More specifically, we will investigate the most common types of welfare technology used and how frequently employees are interrupted by alarms.

Material and Methods

A random sample of 5,000 assistant nurses (response rate 24%) working in elderly care in Sweden responded to a survey conducted from January to March 2025 and prevalences of welfare technique use and response to alarms will be presented.

Preliminary Results

An overwhelming majority (81%) of assistant nurses performed planning, documentation, and medication digitally. Sensors and alarms were part of the regular work for 73%, although the prevalence varied between home care services (53%) and nursing homes (84%). Mobile phones were a common work tool where 84 % of the assistant nurses reported using them almost always/daily. However, 54% reported performing the same tasks on mobile phones, computers, or paper. Being interrupted several times a day to respond to alarms was reported by 43 % and a few times a week by 20%. Half of the assistant nurses (50%) perceived that the alarms were sounded unnecessarily, and alarms were reported to be ignored a few times a week by 10 % and up to several times a day by 14 % of the assistant nurses.

Conclusions

Welfare technology designed to enhance safety, such as alarms and sensors, is, based on our findings, widely implemented throughout the elderly care sector. However, the expectation that its use would increase safety for the elderly and improve the work environment for the staff appears to be largely unmet. While alarm fatigue has primarily been studied in intensive care settings, it also seems to occur in everyday elder care. The results have practical implications for how alarms are organized and distributed. Potential health risks for both the clients and employees needs further investigations.