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Exploring managers' response to a quality and safety leadership intervention: findings from a multiple case study in Norwegian nursing homes and homecare services

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ABSTRACT

Background Improvement interventions would be easier to treat if they were stable and uninfluenced by their environment, but in practice, contextual factors may create difficulties in implementing and sustaining changes. Managers of healthcare organisations play an important role in quality and safety improvement. We need more research in the nursing home and homecare settings to support managers in their quality and safety improvement work. The aim of this study was to explore managers' response to a leadership intervention on quality and safety improvement.

Methods This study reports findings from the SAFE-LEAD intervention undertaken from April 2018 to March 2019. The research design was a multiple case study of two nursing homes and two homecare services in four municipalities in Norway. We used a combination of qualitative methods including interviews, workshops, observations, site visits and document analysis in our data collection that took place over a 1-year period.

Results Management continuity was key for the implementation process of the quality and safety leadership intervention. In the units where stable management teams were in place, the intervention was more rooted in the units, and changes in quality and safety practice occurred. The intervention served as an arena for managers to work with quality and safety improvement. We found that the workshops and use of the leadership guide contributed to a common understanding and commitment to quality and safety improvement among the managers.

Conclusions This is a longitudinal study of managers' response to a leadership intervention targeted to improve quality and safety work in nursing home and homecare settings. Our research demonstrates how the mechanisms of stable management and established structures are crucial for quality and safety improvement activities. Management continuity is key for participating in interventions and for using the leadership guide in quality and safety work.

INTRODUCTION

Quality and safety improvement is a continuous process for identifying challenges and areas for improvement. It covers activities such as making minor improvements like changing mealtimes in nursing homes based on patients' wishes,[1] to testing more innovative ideas and services like new documentation systems and e-health solutions in healthcare organisations.[2 3] According to Marshall *et al*,[4] it would be easy to implement improvement interventions if they were stable and uninfluenced by their environment. But research has shown that contextual factors may complicate implementing and sustaining changes in practice.[5–9]

In Norway, the municipalities are largely responsible for providing sound and safe healthcare services. The municipalities are responsible for providing nursing home and homecare services and are legally bound to improve quality and safety. While quality and safety improvement should be considered a central task across municipalities, this work is often poorly rooted in management.[10] Results from Johannessen *et al*[11] and Ree *et al*[1] show that managers in nursing homes and homecare struggle to balance demands and resources in their quality and safety work, and constantly need to set priorities to ensure sound practice. Managers struggle to maintain continuity of care due to sick leave and constant organisational changes.[11] High turnover can stall organisational and service development, and quality and safety improvement efforts can be challenged by organisational demands.[5] Increased external pressures such as national regulations and financing also affect an organisation's engagement and culture for improvement.[1 11 12]

Leadership is important to quality and safety in healthcare organisations.[5 13–16] Several studies show that managers have an important role in the patient safety culture.[14 17–19] Previous research has shown that managers actively negotiate and

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influence their organisation to support their improvement work.[11] However, managers seem to lack tools and support in their efforts to improve quality and safety.[11 20 21] This is especially a challenge in the nursing home and homecare settings, and there have been calls for more research to develop, test, and evaluate interventions to support managers in their quality and safety work in these settings. Therefore, we developed and implemented a quality and safety leadership intervention in Norwegian nursing home and homecare settings (the SAFE-LEAD intervention).[20 21] In this article, the aim was to evaluate this intervention and its influence on managers' quality and safety work practice. The managers' response to the intervention was explored from the managers' and the employees' perspective. The following research questions guided our study: (1) How does a leadership intervention influence managers' work on quality and safety in nursing homes and homecare; (2) What are the requirements for the intervention to be adopted?

Table 1 Intervention workshop content

Workshop 1	► Introduced the leadership guide (booklet and web version) ► Identified the challenges that the managers experienced in their quality and safety work
Workshop 2	► Established goals and strategies to address the identified quality and safety challenges ► Feedback on survey results from phase 1 of the intervention
Workshop 3	► Developed actions plans
Workshop 4	► Sustainability of intervention
Workshop 5	► Discussed the relation between the leadership guide and quality improvement regulation
Workshop 6	► Feedback on survey results from phase 2 of the intervention

SAFE-LEAD INTERVENTION

This article reports from the project 'Improving Quality and Safety in Primary Care–Implementing a Leadership Intervention in Nursing Homes and Home Care' (SAFE-LEAD).[20] The intervention facilitated the use of a research-based leadership guide for managers for 12 months in 2018–2019. The leadership guide comprises seven quality challenges (structure, coordination/organisational politics, culture, competence, engagement, physical design/technology, external demands) that healthcare managers face in their quality and safety work. By using the guide, the managers diagnose and rate their organisation and performance in terms of these challenges.[20 21] The leadership guide is based on three steps. The first step is to map out the challenges the organisation faces in quality and safety improvement. Step two lists the goals related to the seven challenges. Step three presents action plans.

During the intervention, the researchers supported the managers' quality and safety improvement work through workshops and site visits. Eight units (four nursing homes and four homecare services) participated in the project for 6 months (phase 1). Four of the units (two nursing homes and two homecare services) participated in phases 1 and 2 (12 months). In phase 1, four workshops (2 hours each) were facilitated by researchers in which the managers worked with the leadership guide. In these workshops (table 1), the researchers used a detailed agenda of questions, discussion, reflection and feedback sessions (full description of intervention program in Johannessen *et al*).[21] In phase 2, the managers had more individual responsibility for using the leadership guide in their daily quality improvement work. We conducted observations and interviews with managers and employees and collected data from all workshops and site visits. In phase 2, two additional workshops were conducted (table 1). Two site visits in each unit were conducted where the researchers observed a quality meeting chosen by the managers. The site visits also included a short follow-up reflection or feedback session with a focus on quality and safety improvement.[20 21] We also conducted a survey in all participating units before the intervention and after 6 months. Results from the survey data were not used in this qualitative part of the process evaluation but are reported in other studies.[22 23]

METHODS

The research was designed as a multiple case study[24] of the SAFE-LEAD intervention with a longitudinal in-depth study of four cases,[25] two nursing homes and two homecare services in four municipalities in Norway (April 2018 and March 2019).

Context

Norwegian municipalities have responsibility for general practitioners, nursing homes, emergency room and homecare services.[26] Norwegian municipalities are financed by public funds and the state oversees the municipalities through regulatory and financial frameworks. Apart from earmarked funding, the municipalities have room to prioritise and adjust services to local needs.[27] The Norwegian municipalities vary in size and surroundings, for example, distance to hospital, and this can create variations in delivery of healthcare services. However, they are all responsible for providing healthcare services based on sound professional practice.[27 28]

Case selection and sample

A case is defined as a nursing home or a homecare service in a municipality. The municipalities and units differed in size and location (table 2) according to the selection criteria of variation in size and location.[20] Two nursing homes and two homecare services participated in the two-phased SAFE-LEAD intervention. Co-researchers from the Centre for Development of Institutional and Homecare

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Table 2 Overview of context

Case	Homecare 1	Homecare 2	Nursing home 1	Nursing home 2
Municipality population (approximate N of inhabitants)	5000–10 000 Rural municipality, border to big municipality	15–20 000 District, medium-sized municipality	130–135 000 Large city, municipality	70–75 000 City, large municipality in area
Organisation	Delivers homecare services Practical assistance	Delivers homecare services Practical assistance Responsible for a community-based activity centre	Seven departments: 1 short-term department 1 drug care department 3 dementia departments 2 long-term departments	One department divided into three groups: 1 dementia group 2 long-term groups
Size of management team	4	4	8	1

Services in the municipalities recruited the study sites. Unit managers selected participants for observations and interviews and appointed a management team to participate in the intervention program. The size of the management teams depended on the size of the unit and how they were organised in the municipality (table 2). The samples consist of management teams (unit managers, department managers, professional development nurses, coordinator, system responsible) and employees (registered nurses, healthcare professional and assistants).

Data collection

Data were collected across three phases in all four units: before, during and after the intervention (table 3). We combined qualitative methods (individual interviews, focus group interviews, workshops, observations, context mapping and document analysis) to triangulate and provide in-depth contextualised understanding of the intervention and managers' practice to improve quality and safety during the intervention. We collected data from the management teams and employees. All data collection was conducted at the study sites. In total, seven focus groups and two individual interviews were conducted before the start, four focus group interviews after 6 months into the intervention and seven focus group interviews after completion of the intervention. Interviews were semistructured and covered topics such as implementation, usefulness of the SAFE-LEAD guide, contextual integration, intervention evaluation, changes in work practice and sustainability of quality improvements (online supplemental appendices 1–5). All interviews were audio recorded and transcribed verbatim. During the intervention, we observed managers and employees in all units (108 hours) to understand how they worked with quality and safety improvement in their daily activities. The researchers used an observation guide that included themes such as quality meeting, discussion of quality and safety, and arena for quality and safety improvement (online supplemental appendix 6). We conducted 17 hours of site visits. In addition, we collected documentation on organisational structure, quality strategy, risk analysis, and organisational strategies and plans. All units were also mapped according to the SAFE-LEAD context mapping tool[29] to gather information from the different settings and their development during the intervention period.

Table 3 Summary of data collection

Period	Methods
March 2018	► 3 focus group interviews, managers (n=15) ► 2 individual interview, managers (n=2) ► 4 focus group interviews, employees (n=19)
April 2018–March 2019	► Workshops (44 hours) ► 4 focus group interviews, managers (n=23) ► Observation, managers (71.5 hours) ► Observation, employees (36.5 hours) ► Site visits (17 hours)
April 2019	► 3 focus group interviews, managers (n=16) ► 4 focus group interviews, employees (n=18) ► Document analysis

The data collection was conducted by researchers from the university with backgrounds in nursing, health psychology, safety science, engineering and health management. Two Centres for Development of Institutional and Homecare Services and a municipality were central partners in the SAFE-LEAD Project and representatives from these partners participated during the data collection as co-researchers. The project team was divided into intervention teams (one researcher and one co-researcher). Each intervention team had the overall responsibility for each study site during the intervention period. Co-researchers contributed with professional language and contextual knowledge in workshops and supported and facilitated managers' use of the leadership guide in their local practice (see[30] for further details). The project team had different backgrounds and affiliations that ensured quality and trustworthiness in interpretations of data, in workshops, observations and interviews. The project team from each study site had monthly project meetings with discussions and reflections about the intervention process and consistency of the intervention

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activities (such as experiences from conducted workshops and activities and advice to ensure usefulness for the managers). These activities were key to reflection and quality of the research process.[30]

Patient and public involvement

The user, patient and next of kin perspectives are important in the SAFE-LEAD Project and were used in the design and implementation of the leadership intervention (the SAFE-LEAD intervention). Several co-researchers representing different stakeholders participated during the entire research process from planning to publication.[20 21] Patients were not directly involved in the implementation of the leadership intervention. In addition to peer-reviewed publications from the project, the results are disseminated through summaries, podcasts and social media.

Analysis

The data material was analysed as an integrative analysis.[31] We used Strøm and Fagermoen's approach[31] to integrate interviews and observation notes collected throughout the 12-month intervention and analysed it as a complete dataset. Within-case analysis in each unit was conducted to capture information within each unit. First author, with support from two coauthors, conducted an inductive content analysis of information on the units' implementation process, changes during the intervention, and mechanisms that contributed to implementation and quality and safety improvement work. First author read through the data and highlighted themes. This was discussed with the coauthors. Meaning units were extracted from the text to be sorted and categorised. First author then drafted a narrative of each case, as recommended when analysing organisational processes.[32] These were developed by integrating data from interviews, workshop notes and observations describing the units' intervention process and changes throughout the intervention period. The third analysis step was a cross-case analysis to map similarities and differences between the units' and managers' work practice to improve quality and safety, and to identify requirements for the intervention. These were discussed by the entire research team to agree on themes and categories. The purpose of our integrative analysis was to produce a systematic, descriptive overview of the essence of each unit and how the managers implemented and worked with the leadership guide and extracted mechanisms that influenced the implementation process.

RESULTS

The influence of the leadership intervention on quality and safety work practice varied among the units in our study. The management teams became more focused on their quality and safety work and they described the process and time allocated to work with quality and safety as important. Three units implemented quality and safety improvement actions. Table 4 presents an overview of the implementation process in each unit. Two categories emerged from the analysis: (1) management continuity as the main contributor to the implementation process; and (2) the importance of arenas and systems for quality and safety improvement. The results are first presented with a narrative from each case (box 1). The results from the categories are then synthesised.

What contributes to quality improvement work? Cross-case results

Management continuity

In our study, management continuity was key for the implementation process of the quality and safety leadership intervention. The implementation depended on stable management teams and on managers' engagement and follow-up. In units that already had stable management teams in place, the intervention was more rooted in the units, and there were changes in quality and safety practice. In nursing home 1, where the same management team participated throughout the intervention, and consisted of managers and professional development nurses, they implemented actions and offered employees courses on person-centred care. In homecare 2, they met with resource persons to implement whiteboards. The employee involvement in the implementation of whiteboards increased their engagement. In all units where managers were engaged with the intervention (consistency of manager participation in workshops and engaged in discussions), the intervention went as intended, whereas the reverse was also true. For example, nursing home 2 did not prioritise the use of the leadership guide after phase 1 and the intervention failed as a result of manager turnover. The new manager who was overwhelmed with new responsibilities did not see the benefit from the intervention and did not make it a priority. As an employee in the unit with high manager turnover stated:

> It is a lot of stress that I'm carrying. Everything from practical things like holidays and how new routines will be in the department. (healthcare worker, nursing home 1)

Throughout the intervention, contextual challenges competed with the intervention; among these challenges were externally driven organisational processes and demands from municipalities (checklist, courses, risk analysis). In workshops and during site visits, the management teams integrated external demands with their units' strategy and goals. For example, during a site visit, the researchers observed that homecare 1 used the leadership guide to get an overview of demanding processes in the planning phase of the merger of municipalities. The management team found it important to share information with employees as this was a phase that entailed a high degree of uncertainty for the organisation. According to the managers, the employees would be better prepared to answer questions from patients and next of kin. The management team in homecare 1 wanted the new managers in the merger to get an understanding of their

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Table 4 Implementation process in the four units

Aspect of the intervention process and status in the organisation	Homecare service 1	Homecare service 2	Nursing home 1	Nursing home 2
Characteristics of the organisational context	Small municipality. New management team. Structure as their main quality challenge. Professional development nurse plays a key role. Fixed worklist was central organising mean to ensure quality.	Established management team. Wanted to continue with integrating the use of whiteboards in daily practice for employees. Professional development nurse was central in quality work and for getting quality on the agenda.	Strong and established management team. Large nursing home. Seven departments with different needs. Wanted to make person-centred care a main goal before participating in the intervention.	Small nursing home within a large municipality. Decided to establish a common understanding for quality improvement. Internal change processes within departments of the nursing home and in the municipality. Started the intervention process as a joint process together with homecare services in the municipality.
Ethnography	Strengthened management structure and responsibility during intervention. Established commitment and common understanding in the management team. Intervention led to better oversight and building of relations within management team.	Stable management before intervention start-up with quality plans. Implemented Whiteboards. Created quality meetings. Used professional development nurse in this work. Intervention created a conceptual framework for structuring talking about quality and safety.	Intervention contributed to commitment and common understanding in the management group. Actions implemented in daily practice.	Intervention was suspended due to management turnover. No implemented actions. General frustration within the organisation due to lack of management stability.
Managers identified quality and safety challenges as part of the intervention start-up phase	Structure	Structure Culture	Culture Engagement	Culture Engagement
Goals to overcome the challenge	Develop a common understanding of quality in the unit.	Build capacity and resources for quality improvement in the unit. Integrate quality improvement in daily routine for employees.	Incorporate person-centred care into all activities.	Develop a common quality goal among managers.
Actions implemented to reach their set goal	Lunch to inform employees. Established task responsibility in the management team. Weekly quality meeting. Updated the primary care role.	Established quality meeting. Practical use of whiteboard. Prepared further use of the leadership guide in meetings.	Internal courses. Kickoff for person- centred care. Established common goal in the management team.	None
Main contextual challenges during intervention period	Municipality merger process. Newly established management team.	Structural changes in organisation.	Distance in municipality/lack of support.	Manager turnover in the nursing home and at the municipal level.

fixed work lists and how this contributed to high care quality in their homecare service. We also observed how the managers adapted the use of the leadership guide to their context, for example, by condensing the three-step process to a 1-hour meeting on hectic workdays, in which they mapped, set goals and developed action plans. Several managers claimed that they needed to shorten the process to sustain the use of the leadership guide. A unit manager in homecare 2 expressed conditions for the implementation to go well:

> Skilled department managers who always show up for work and who cheer on employees. Managers who are clear on the goals and act as a role model themselves. The department managers need perseverance, then, they learn from each other, set aside time, write it in the book, and talk across departments.

A common element across units was the key role of professional development nurses as part of the management team in facilitating managers' quality and safety work. Our findings showed that conditions for organisations'

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Box 1 What happened? Descriptive narratives from the intervention process

The merger of municipalities

In homecare service 1, located in a rural district, the same management team participated throughout the intervention period with a professional development nurse. The municipality experienced a planning phase of a merger with the neighbour municipality during the implementation. In workshop 1, the managers identified structure as their main quality challenge. The managers also set the goal to establish a common understanding of quality in the unit. They developed actions such as a weekly Tuesday lunch to inform employees about quality and safety improvement activities and as an arena for employees to share competence. Other actions were to establish task responsibility in the management team, as well as weekly quality meetings within the management team to follow up on quality work and update the primary care nursing role. Workshops during the intervention gave the management team a shared understanding of quality as the members comprised a newly established management team. The management team had a positive attitude towards the leadership guide and met to discuss quality issues after the workshops finished. In the planning phase of the merger, they used the leadership guide to get an overview of demanding processes they were facing and what to concentrate on in an uncertain phase of their quality work.

The integration of quality and safety improvement in daily routines

Homecare service 2 was located in a rural district. In this unit, the same management team of managers and a professional development nurse participated throughout the intervention period. They identified culture and structure as their main quality challenges in workshop 1. In workshop 2, the managers chose the goals to build capacity and resources for quality improvement in the unit and to integrate quality improvement in daily routines for the employees. Action plans consisted of establishing quality meetings as an arena for discussing quality challenges in the services and to hold whiteboard meetings as a work routine for quality improvement among the employees. The unit manager arranged meetings with resource persons to discuss successes and challenges with the implementation of whiteboards and for sustainability purposes. Managers considered the leadership guide as a strength in terms of being research based and containing a high-quality standard. This was a source of pride and motivation for the management team. Throughout the intervention period, the management team found 'physical design and technology' as a new challenge, because they needed to implement health technology in the services in near future.

The person-centred care unit

Nursing home 1 was located in a large city. In this unit, the same management team of managers and professional development nurses participated during the intervention. The managers identified culture and engagement as their units' main quality challenges in the first workshop and agreed to focus on these. The management team had decided to make person-centred care a main goal before participating in the leadership intervention. In their action plans, they set a kickoff date for putting person-centred care on the agenda in all activities. All employees were informed of the goal for the nursing home and the upcoming planned in-house courses for

Continued

Box 1 Continued

employees to educate them on person-centred care. Throughout the intervention period, the management team described their struggles with external demands from the municipality; for example, they needed to implement a nutritional assessment tool for each patient. During the intervention, they were able to connect this to their action plan in the intervention, thus integrating external demands with internal goals. The workshops contributed with a common understanding of the management team.

The struggle with management turnover

Nursing home 2 was located in a medium-sized city. In this unit, the management team collaborated across nursing home and homecare in the first phase of the intervention. This unit was characterised with management turnover. Two managers (one unit manager and one department manager) left during the intervention period. They cited culture and engagement as their quality challenges in the first workshop. In workshop 2, they were trying to establish a common understanding of quality improvement. The management team claimed to have a common understanding, but it was difficult to involve the employees. In their action plan, they wanted to develop an education plan for newly hired assistants. The intervention failed in phase 2 because of a change of management. Employees explained that the change in leadership had brought activities to a halt and that they felt insecure in their situation, for example, with taking holidays off. The new manager had not attended previous intervention workshops and using the leadership guide was not prioritised, as the intervention was considered an additional burden. The manager was temporary for two departments at the same time as being manager at the intervention nursing home. The intervention ended, and data collection consisted of observing daily work and interviewing employees about their work situation.

success with the leadership guide were the role of professional development nurses, who adapted the implementation to local conditions. For example, we observed how professional development nurses offered internal courses on person-centred care to employees. Nursing home 1 had a full-time professional development nurse who implemented actions from the intervention and engaged employees. Both interviews and researchers' workshop notes showed that professional development nurses brought good insights to the workshop and facilitated quality meetings.

Arenas and systems for quality improvement

A main finding was the lack of systems and arenas to work on quality and safety improvement in daily work practice. In our study, the intervention workshops and leadership guide contributed to a common understanding and commitment in the management teams and created an arena in which managers could focus on quality and safety. During the intervention, managers expressed that they realised that someone needed to establish a structure and take responsibility for scheduling and organising quality meetings. Our findings demonstrated a lack of systems for quality improvement in all study units. The units used systems for reporting deviations (eg, medication errors, near misses, fall injuries), but had few systems for creating an overview

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and systematising the quality and safety work. The leadership guide provided the managers with a tool for a clearer sense of quality and safety in the units. Managers claimed to have worked with quality in different settings, but there was no documentation and there was no system for managers to connect all quality work-related activities, as illustrated by the following quote:

> This tool is very useful [leadership guide] and puts a concept on the daily work that we are doing and integrates it into a system. This is a very good thing to adhere to. What we are doing now, you [researcher] have observed us in the department, we don't document that on an ordinary basis. (manager, nursing home 1)

The workshops (working with the leadership guide) also created a social and reflexive arena for quality and safety work. In homecare 1, they developed a positive attitude towards the leadership guide through the workshops and perceived it as a useful arena to discuss quality and safety. The contributions with researchers in workshops stimulated reflection and discussions in the quality and safety improvement work. Nursing home 1 consisted of five department managers, and they also used the intervention workshops as arena for interdepartmental competence development. Observation otherwise showed little time for direct daily reflection on quality and safety work in management teams. Managers claimed to have plans for quality and safety work but failed to complete all quality-related tasks on busy workdays:

> The challenge that remains is to follow up what is already in the structure and system. There is much that we talk about and want to do, but we need concrete plans for implementation and changes in practice. (manager, homecare service 2)

We found that the workshops and use of the leadership guide contributed with sustained focus and a more structured process that eased implementation of actions in practice. Results showed that when managers understood the leadership guide, they felt a greater sense of control, worked more independently, and took advantage of the quality arena and an agenda set by the intervention programme. According to the unit manager in nursing home 1:

> For us it has been more committing to be part of this [leadership intervention], it has more to do with the actions around the tool and the structure itself. I think we have seen good results from working this way, that we have had our own meetings only dealing with this [quality and safety improvement], and separate it from the rest of the work tasks that we have to do.

DISCUSSION

In this study, we found that managers' response to the leadership intervention depended primarily on management continuity. Units with a stable management team had more capacity for quality and safety improvement and implemented actions as planned. In contrast, comprehensive management turnover in one of the units led to withdrawal from the intervention due to lack of capacity for quality and safety improvement at the management level, and thus lack of prioritising the leadership guide. The results from Vaughn *et al*'s systematic review[33] found disconnected leadership and leadership turnover as two of several factors that characterise organisations that strive to succeed with quality and safety improvement. In addition, our findings showed limited capacity to work with quality and safety in daily work practice. Managers expressed lack of time and no systems for quality and safety improvement. Our results are consistent with a review by Lau *et al*[34] showing how organisational turbulence and the exigencies of everyday work impede implementation. This illustrates the importance of understanding the contextual settings (competence, capacity, leadership situation) in nursing homes and homecare services prior to implementation efforts. It also explains the everyday challenges in nursing homes and homecare settings where these factors are constantly changing.

Parand *et al*'s systematic review[14] found that hospital managers do not spend sufficient time on quality and safety. Our study found similar results in the nursing home and homecare settings. However, throughout the intervention, we found that management continuity together with arenas and systems for quality and safety improvement gave the managers an opportunity to reflect on their quality and safety challenges and improvement areas. This adds important sustainability in focus and implementation of actions. The managers, however, needed to perceive the leadership guide as useful. Our deviant case with high management turnover demonstrated how the unit was not ready for a leadership intervention. In such a situation, the leadership guide and the intervention programme were incompatible with the manager's need for an overview of the organisation. This illustrates the need for context-sensitive improvement measures to support managers, and a need for genuine interest from the managers to participate in intervention activities.

An intervention described by Jones *et al*[5] is founded on similar theoretical backdrop and guide structure as the SAFE-LEAD intervention. This illustrates that the guide has a potential in hospital settings as well as the nursing home and homecare settings when it is context sensitive. However, major effort is required before the implementation to adapt the tool to the local context where it is being implemented.[21] In line with previous studies,[35–39] contextual factors were important in the units' implementation process. In our study, different organisational contexts affected the focus and use of the leadership guide. Managers used the workshops as arenas for quality improvement discussions and steer quality and safety work according to their jointly established priorities. However, they needed to come across

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the barrier with different patient needs in departments. The management team's discussions in workshops contributed to collective solutions and actions. This is in line with the work of Engeström *et al*[40] who describe an intervention which facilitated managers and stakeholders to learn in multiple workshops and take the learning and reflections back to their units as a new, negotiated way of working. We know conceptualisation of quality may differ between managers and employees,[41 42] and further investigation into the negotiations with the employees as an ongoing part of the management activities is recommended for future research.

Understanding contextual barriers and challenges in quality and safety work is crucial to effective interventions.[7 9 38 39] Flexibility in the use of the leadership guide made it possible for managers to adapt it to their setting, thus contributing to quality and safety improvement work. Cappelen *et al*[43] indicate that organisational initiatives in nursing homes tailored to local needs improve the patient safety culture. The authors emphasised the importance of managers facilitating employees' participation and supporting employees' responsibility for patient safety initiatives.[43] This was evident in our study; in one of the homecare services the managers were determined to involve employees to sustain the work with whiteboards. We found that requirements for the intervention to be adopted were stable management and establishment of structures. Managers' engagement and follow-up in workshops were important for the intervention to be rooted in the units and for actions to be implemented. Also, the role of managers to structure quality work and delegate responsibility to the team managers and involve professional development nurses was fundamental for adopting this intervention. This is in line with research on interventions in other settings.[5] It is also clear that the role of the researchers in driving the intervention process was important in our study. The researchers also established a structure and set out a detailed process for the management teams as part of following the intervention programme. Future studies of how interventions with a content related to organisational development and competence development, like the SAFE-LEAD intervention, can be executed with limited researcher involvement are recommended.[44]

Norwegian national healthcare policy has highlighted management, culture, and systems as important topics for improving quality and safety.[45 46] The regulations for management and quality improvement[47] in the healthcare service are meant to lay the foundation for quality-oriented management and systems. However, our study explains how managers in nursing home and homecare services struggle to have an overview and complete all quality and safety-related tasks. Kattouw and Wiig[48] found that for some municipalities, quality and safety had less priority and that finances dominate the management of homecare services. Managers' constant need to negotiate their context against externally driven factors is time-consuming[1 11] and affects their goals and plans for quality and safety improvement. Based on our results, using the guide actually helped managers to incorporate external demands and 'context' into their quality strategies.

Units with high management turnover and constant organisational change processes lack the opportunity and capacity to work with quality and safety improvement and set up structures to enable this work. Our results indicate that units in need of quality improvement (eg, lack of structures, turnover, lack of manager commitment, low user involvement) are the most unlikely to benefit from them. Thus, national healthcare regulators and policymakers need to acknowledge this in a risk-based perspective, give priority to such contexts, and support and follow up managers in nursing homes and homecare services to enable sound organising and working with quality and safety improvement.[49 50] Results from this study contribute with longitudinal insight into managers' quality and safety work in nursing home and homecare services. It shows how several factors affect this work, and how it is possible for this group to set long-term quality goals and participate in leadership interventions as part of their ongoing activities. This should be considered by managers in municipalities and researchers in further research on how to support managers in everyday quality work practice. Despite organisational changes, the results strongly indicated that managers benefited from the reflexive arenas that the intervention and the guide created. Low-hanging fruits for management teams in nursing homes and homecare could be to create similar arenas with management colleagues and with their employees to reflect and discuss on current quality and safety work and ongoing experienced challenges. Furthermore, management teams could also take advantage of research-based tools to support the structure and improve engagement and commitment in quality and safety work.

Limitations

It is difficult to separate the leadership guide from the intervention activities. The managers needed the introduction and facilitated workshops in the start of the intervention to understand how they could use the leadership guide in their daily quality and safety work. The intervention activities (workshop) were also a mechanism that contributed to managers' quality and safety improvement work. In addition, the observations and data analysis could be biased by strong researcher involvement in intervention activities. Multiple researchers can be considered a strength, but also a potential limitation as information could get lost between researchers. However, a strict meeting structure, monthly project meeting, continuous reflection and close collaboration between researchers were measures taken to reduce this risk. We have collected data from several sources (interviews, observations, workshop notes) that give credibility to the findings.[51 52] In addition, the year-long involvement and data collection in the field gave the researchers a deeper

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understanding of local context and how the intervention worked.[53]

CONCLUSION

In this study, we explored managers' response to a quality and safety leadership intervention in nursing homes and homecare. To our knowledge, this is the first longitudinal study of managers' response to leadership interventions targeted to improve quality and safety work in nursing home and homecare settings. The investigation from the mangers' and employees' perspective in our research demonstrates how the mechanisms of stable management and established structures are crucial for quality improvement activities to take place. Management continuity is a dominant mechanism for participating in the intervention activities and for using the leadership guide in quality and safety work. Also prominent was that the SAFE-LEAD intervention served as an arena and a system for managers to work with quality and safety improvement. There is a need for further studies with larger samples and cross-country designs to find even stronger evidence for the leadership guide and how it might work in different contexts.

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