

Practice-based learning and innovation in nursing homes

Cecilie Anvik

Nord Universitetet, Bodø, Norway

Janikke Solstad Vedeler

Nordland Research Institute, Bodø, Norway

Charlotte Wegener

Department of Communication, Aalborg University, Aalborg, Denmark

Åshild Slettebø

University of Agder, Kristiansand, Norway, and

Atle Ødegård

Molde University College, Molde, Norway and University of Stavanger, Stavanger, Norway

Published in Journal of Workplace Learning, 2020 DOI [10.1108/JWL-09-2019-0112](https://doi.org/10.1108/JWL-09-2019-0112)

Abstract (250 words)

Purpose: This article investigates the conditions under which learning and innovation occur within nursing homes. It addresses the interplay between formal and informal learning situations and discusses how these processes facilitate individual staff and workplaces' capacity for innovation.

Design/methodology/approach: Data was produced via fieldwork, which included participant observations, conversations, and research interviews with staff and managers at a Norwegian nursing home. The article is inspired by situated learning theories and communities of practice, as the social context emerges as the site where learning and innovation are cultivated.

Findings: The nursing home sustains a learning environment through managers and staff's participation in planned learning situations and thereby highlights a focus on learning in their everyday practices. The conditions for the interplay between planned learning situations and everyday learning practices are identified as the effort to create a "joint enterprise" and reflexive practices.

Social implications: The Global North is aging. Consequently, there is an increasing need for facilities and adequately trained professionals to support an aging population. Addressing these challenges will require an increased focus on developing supportive learning environments and furthering our knowledge about the interconnections between learning processes and innovation.

Value: This article contributes knowledge regarding nursing homes as professionally exciting places to work. Additionally, it points out conditions that allow for learning and innovation to be cultivated and thereby increase the quality of elderly healthcare services provided.

Keywords: innovation, learning, workplace, competence, nursing homes

Introduction

A nursing home is not necessarily a place where life comes to a halt for residents or professional competence. In fact, what struck the visiting researchers upon entering the nursing home was its liveliness; the researchers noticed the open doors, residents and staff strolling through the garden, residents fastening their helmets as they hopped onto their electric stroller bikes, and others enjoying a coffee break or a singalong on the balconies. Inside, during the weekdays, residents, staff, student nurses, and health service trainees filled the common areas on all floors whilst visitors arrived and were directed to the wards. The researchers quickly realised that no day is ever the same, and each day rarely pans out exactly as planned.

As catalysts and organisers for such life-enriching activities, managers and staff who hold different positions and areas of expertise are involved in various networks and collaborative projects in which they continually build their professional skills and organisational capacity for improvement. These professionals aim to identify new solutions to the challenges that confront them in their daily work experiences and test new ideas alongside their colleagues, residents, and local citizens. All these practices involve a continuous focus on learning—both that which arises from informal, everyday problem solving and that which is found in formally planned competence building. In keeping with other parts of the public service sector, the elderly care is pressured by new economic, technological, and demographic factors (Bevan, 2012).

To identify a workplace's capacity as a community for learning and innovation as well as what such a capacity looks like, context-sensitive knowledge must be developed. Effectively approaching this aim, involves analysing and discussing the connection between learning processes and innovation (Ellström, 2010). While innovation is perceived as relevant and even necessary in nearly all kinds of work, the innovative potential and learning involved in everyday practices have become highly relevant objects of study (Wegener, 2016). Building upon the body of workplace learning and practice-based innovation literature, this article focusses on the innovative potential of practices and problem-solving processes in complex, dynamic work contexts (Ellström, 2010; Billett, 2012; Fuller, et al, 2018; Wegener and Tanggaard, 2013). Learning and innovation is part of both formal and informal social practices. The literature of communities of practice is a relevant theoretical and analytical framework for exploring the nursing home as a site where innovation and learning take place in “relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice.” (Lave & Wenger 1991: 98).

This article addresses the interplay between formal and informal learning situations and discusses how these processes facilitate individual staff and workplaces' capacity for innovation. The article draws on data from a three-year research project that examined innovation processes and outcomes in four Norwegian and two Danish elderly nursing homes.

Research on learning and innovation in nursing homes

Elderly healthcare services face several challenges, including the caring for an increasingly ageing population, increased demands for high-quality services, and the need for new technology to be applied (Bevan, 2012). Technological and medicinal advancements have transformed previously fatal illnesses and diseases into chronic health problems. The population's average age is increasing, and more people are requiring several years of elderly care—thus representing a trend that will steadily grow—and many citizens now expect a high standard from their personally tailored public health and care services. Finally, new technological advancements will significantly change the manner in which welfare is provided, although the real impact of these new technologies will be experienced more notably in the public health system than in other areas over a longer duration (Davies and Boelman, 2016).

Despite these addressed challenges, research on learning and innovation in nursing homes is relatively scarce. The studies that exist—both Norwegian (Totcheva, Vedeler and Slettebø, 2019; Eines, Angelo and Vatne, 2019; Eines and Vatne, 2018; Glette et al, 2018; Øye et al., 2016) and international (Brodtkorb, Skaar and Slettebø, 2019; Bezboruah Paulson and Smith, 2014; Wegener, 2016)—highlight the importance of leadership and management engagement and capacities when innovation processes are initiated at nursing homes. Other studies approaching learning as a prerequisite for innovation point to the potential in care workers everyday work practices where problems occur, new ideas are tried out, and colleagues serve as reflection partners (Verleye and Gemmel, 2011; Fuglsang, 2010; Wegener and Tanggaard, 2013; Wegener, 2012)

Some studies find that, to improve the quality of care delivered to nursing home residents, the care professionals must be educated on the evidence-based practice and proper use of guidelines derived from the theory of gerotranscendens. Both organizational and individual factors are perceived as important for staff's learning and improving skills in nursing homes (Chisholm et al, 2018; Williams et al, 2016; Wadensten, 2010), and one study addresses the staff's learning of communication skills in these homes (Williams et al., 2016). Social support has been determined important in fostering a beneficial work climate, and researchers highlight the importance that leaders address such elements to ensure job satisfaction and motivation among nursing personnel (Adams, Verbeek and Zwakhalen 2017). Moreover, Berntsen and Bjørk (2010) found that nursing homes require improvements regarding innovation, involvement and personalization to provide adequate learning contexts for nursing students.

Theoretical framework

Inspired by situated learning theory, this article draws on the theories of communities of practice (Wenger, 1998, 2000) and practice-based innovation, as: ‘innovations may be viewed as the result of learning and knowledge creation through which new problems are defined and new knowledge is developed to solve them’ (Ellström, 2010, p. 36). A community of practice is perceived as a social context that structures and gives meaning to activities and relations. This perspective explores how learning is an integral part of ongoing social practice (Lave, 2019). The notion of a community of practice explicitly focuses on the social dimensions of learning located ‘not in the head or outside it, but in the relationship between the person and the world’ (Wenger, 2010, p. 1). We regard the nursing home as a social practice where ‘actions take place in social settings and experiences occur at the intersection of the individual and the social world. Learning often occurs at this point of interaction’ (Darsø and Høytrup, 2012, p. 144).

In understanding the informal aspects of learning, and how learning environment can foster innovation, we draw on the vast literature of workplace learning (e.g. Billett, 2004; Billett and Choy, 2013), the notion of enabling and constraining learning environments (specifically in care work, see Ellström, Ekholm and Ellström, 2008). Our conception of informal learning is inspired by Eraut’s (2004, p. 247) theoretic framework for learning that takes place ‘in a much wider variety of settings than formal education or training’. Informal learning puts emphasis on interpersonal learning while similar terms such as learning from experience usually addresses personal learning. In this article, innovation is specifically related to the learning practices, relations, and processes identified within the nursing home as a workplace context and how workplace learning processes might lead to new methods of improving the provision of care. Learning is situated and facilitated within the nursing home context, which allows for a lens shift between micro and macro perspectives. This shift is aptly captured by Holland and Lave (2009), who claim their studies begin with ongoing, everyday life and its differently located participants and that these situations must be understood in light of historical, cultural, and political-economic circumstances. Thus, the particularities of one elderly care facility are unique yet serve to illustrate larger trends and tensions on local, national, and international levels.

A situated approach facilitates an exploration into ‘how the amalgam of the personal and social environment shapes workplace learning’ (Billett and Choy, 2013, p. 269) by focusing on interactions between people, collaboration in problem solving, and the quality of these interactions (Wegener, 2016; Aakjær, 2014). Practice-based innovation relates to the renewal of work procedures (Ellström, 2010) based on learning in and through work processes. This article primarily focuses on innovation *processes* rather than outcomes, although the findings section provides some examples of the latter. Innovation and learning involve managers’ and staff members’ competence-building activities to improve nursing home residents’ quality of life. Ellström’s (2010) workplace learning and innovation model introduces

two dimensions of work processes: explicit and implicit. Explicit processes cover the formally codified, prescribed, and organised dimensions, the planning and strategies, and the abstract ideas related to the workplace's formal structures, whilst the implicit dimension involves how the work processes are actually perceived and performed in practice (Ellström, 2010). Learning processes in the workplace contain both dimensions and are the result of various actors in dialogue, conflict, and negotiation.

Method

This article is based on qualitative data from a larger research project conducted in six nursing homes—four in Norway and two in Denmark. The fieldwork, which included observations, conversations, and research interviews with managers and staff, was conducted from December 2016 to October 2018.

In the present study, the research approach was inspired by insight from applied ethnographic research (LeCompte and Schensul, 2010). The study's methodical strategy was based on flexible adaptation, whose direction was guided by events, impressions, and shared stories the researchers encountered during the data collection period. The ethnographic 'sense of direction' was adjusted according to theoretical perspectives and concepts that were encountered and seemed relevant and interesting.

This article draws specifically on data from one of the nursing homes mentioned above, wherein the first and second author conducted fieldwork focusing on how managers and staff work with competence building and professional development. This nursing home houses approximately 50 residents and 80 staff members and is situated in a medium-sized urban municipality in Norway. The 50 residents were mostly females who were suffering from dementia and other illnesses. About one-fifth of the 80 staff members were nurses, while the remaining staff comprised assistant nurses or other employees with no professional qualifications.

The data comprises 187 hours of participant observations, 3 group interviews, notes from 3 work seminars, observations of 3 project meetings and 4 individual interviews. The fieldwork notes comprised descriptions of the activities and conversations held. The research inquiry's scope became progressively more focused over the study's course as the researchers learned more about the nursing home's inner and daily activities. The researchers' learning process unfolded in parallel with an increased awareness of one core type of manager and staff activities, that is, professional development activities. These activities comprise those that are planned and those that occur in the daily interactions between managers and staff, among staff themselves, and between staff and residents. The fieldwork was carried out as four planned weeklong observation periods as well as shorter sequential visits (single days, work hours). The aim of the fieldwork was to gain insight into the daily life and activities in the elderly home. The two researchers planned the fieldwork together (what activities to take part in, what to look for) and had regular meetings at the end of each observation day to discuss first impressions and to calibrate the direction of the following observations.

To broaden the general knowledge of these activities, three semi-structured one hour long focus group interviews were held with managers and staff (altogether nine staff members, including managers, nurses, assistant nurses and other employees with no professional qualifications). The aim was to gain insight into their perspectives and stories concerning the various types of professional development activities, and how they perceived the relationships between planned professional activities and what happened in their daily work with residents.

Moreover, in three work seminars, the research project and preliminary findings were discussed with staff and management. Approximately 15 staff members attended each seminar, staff members of different grades. The manager also took part in three annual project meetings (approx. 21 hours total). In these meetings, researchers and nursing home managers participated to reflect on the projects research questions and sub-themes, the implementation of it and discuss preliminary findings. The four individual interviews included one one-hour interview with the manager with a general aim to gain insight into factors related to the history of the organisation, why the nursing home came to focus on innovation. The three others were one-hour interviews with one nurse and two nurse assistant, respectively. The aim was to explore three concrete innovations that had been implemented in which these three participants had played key roles, namely in the introduction of a volunteer coordinator position within the nursing home, in the establishing of a Saturday café run by a local school and in the usage of music in interaction with residents. All interviews were digitally recorded, transcribed, anonymised, and uploaded to a qualitative data computer software package (NVivo).

Both researchers who conducted the fieldwork collaborated closely in coding and categorizing of the material. The first analysis phase began while the researchers were in the field and then moved into a second circular phase characterised by the close reading of field notes, interview transcripts, codes, and literature in the fields of situated learning (Lave and Wenger, 1991), communities of practice (Wenger, 1998, 2000), workplace learning (Billett, 2004), and practice-based innovation (Ellström, 2010; Nicolini, Gherardi and Yanow, 2012). Wenger's communities of practice theory provided particularly important analytical tools for identifying how and why the nursing home focused on learning. Ellström's (2010) model of the cycle between learning and innovation became a significant point of departure when examining and discussing the dynamics between learning and innovation. Of particular interest are the distributive and transformative elements of learning and innovation, identified in the dynamics between the nursing home's formal, planned competence-building situations and its everyday problem-solving work. These theoretical resources were important for the analyses, which relied on a combination of inductive and deductive approaches, where the close empirical reading of the material moved towards a theory driven analysis, relevant for interpretations of the empirical findings (Braun & Clarke, 2006).

The Data Protection Official at the Norwegian Centre for Research Data reviewed the research design, including the consent forms, to ensure the researchers followed the ethical research guidelines.

Findings

Contextualising the nursing home as a site for learning and innovation

The nursing home houses several spaces where learning, professional development, and transformative work occur. One such space is the large meeting room professionals use for both larger and smaller meetings, internal courses, training sessions, and external lectures. The nursing home has a smaller conference room on each floor where various project meetings, management meetings, coffee hours, and conversation groups among residents and volunteers are held. Each floor has its own shift room where the transitional meetings between various shifts are held and where staff take their meal breaks and register information in the electronic journal system and other systems used for procedural updates. In the medicine room, washroom, and storage area, staff meet for situations concerning dosage boxes, diapers, or bedpans as they discuss the residents' differing circumstances and the adjustment of practical everyday routines. The nursing home offers practice placement to assistant nurse pupils and nursing students as well as work training to refugees through the local public employment offices. Through these placements, students and trainees ask questions that managers and staff answer and reflect upon.

Some years ago, the general manager and the unit managers decided to acquire further knowledge to improve the residents' quality of life and make staff's jobs more interesting and less routinised. How and why did this nursing home start developing what Billett and Choy (2013, p. 272) define as 'planned learning situations'—that is, professional development activities? This question can be understood as a disruption that influenced the nursing home to reorganise.

The nursing home was previously part of an integrated service that also provided community nursing. Thus, nurses and nurse assistants worked interchangeably to provide care to nursing home residents and elderly people living at home. Around ten years ago, the municipality then decided to transform the nursing home into its own organisation run by one general manager and two unit managers. This establishment offered the opportunity to reflect upon what services the residents should be offered, as the general manager described care work with residents as previously routine and perceived as 'incredibly boring'.

During an interview, the three managers discussed how their 'old' practice was characterised by scarce professional competence in different arenas (e.g., dementia). Although they recognised the need for routinised work in the nursing home, they emphasised that not all services needed to follow standardised procedures. They concluded that new initiatives and activities needed to be introduced to improve the residents' quality of life. They needed to update medical routines and treatment to meet the current demands for quality. In all, managers recognised the growing need to (more) systematically draw on staff's personal experiences, engage in competence-building activities to improve the services offered

to residents, and implement professional development activities; as the general manager said, to do so, '[w]e needed more knowledge'.

Both the general manager and the unit managers claimed that this creative process inside the nursing home developed in tandem with significant events on the outside. Considerable international research on elderly care was launched in the municipality, for which the nursing home was assigned a prominent role in professional development. The general manager encouraged the two unit managers to participate in a continuing education and training course in geriatrics. One unit manager described the course as follows:

A revelation...in that to see each human being, you actually need to have knowledge...And I became increasingly interested in what is competence and why we proceed as we do...And I also realised that [competence] is something we need to keep warm.

Another important event was the managers' visit to a nursing home in a neighbouring county that had implemented a practice they called a 'professional lunch break'. During these lunch breaks, staff who had attended a conference or seminar were required to share with colleagues their newly acquired insight and reflect upon how this knowledge would be relevant to their own nursing home. In addition to these breaks, in-house seminars, and the annual professional day exists a working environment committee, which is a mandatory function in organisations with more than fifty staff members (cf. Working Environment Act §7–1). This committee is the local translation of the national-level democratic governance that involves the triangular relationships between government, trade unions, and employers' associations, thus representing a vital aspect of the Nordic welfare state model (Pedersen and Kuhnle, 2017).

Formal, planned learning situations

As the years have passed, the managers have in collaboration with staff institutionalised and developed reflection groups, professional lunch breaks, in-house seminars, and an annual professional development day, and these can be conceptualised as incremental innovations (see Ellström, 2010). Additional radical innovations have arisen, such as a 'life quality improvement' certification program and an electronic journal system that has affected the way information is distributed among employees. Furthermore, different 'learning projects' (Wenger, 2000, p. 232) have been employed to push their competence building further.

The content of the annual development day, lunch breaks, and in-house seminars—or what we conceptualise as formal, planned learning situations—develops through group development conversations that managers hold with their staff once annually. During these conversations, staff are encouraged to address gaps in resident care competence, such as in patient safety, diabetes, heart failure,

pain relief, wound prevention, palliative care, hygiene practices, and challenging behaviour among residents, to name a few areas.

Based on the group development conversations, the manager drafts a competence plan that illustrates the nursing home's priorities for the year and ascertains who will participate in continuing education and training courses. A number of employees are chosen or volunteer to take courses and training outside the nursing home. Through the planned learning situations, the remaining staff are exposed to updated knowledge and procedures, such as proper cleaning execution—a duty that all staff members are required to occasionally perform. Moreover, planned learning situations clarify who possesses what kind of competence; thus, when someone has a question, he/she knows whom to ask for advice or help. Most of these situations are mandatory and facilitate increased transparency related to competence within the nursing home.

Employees with both formal and non-formal qualifications are encouraged to attend training courses and seminars to improve their personal competence and subsequently help educate their colleagues. The managers aim to build their community through 'mutual engagement' (Wenger, 1998, p.137) with participants who make 'complementary contributions' (Wenger, 1998, p. 76); as such, the managers value partiality as a resource and at the same time work to foster collaboration and 'learning partnerships' (Wenger, 2010).

Informal, everyday learning practices

In a nursing home, many standardised procedures must be followed, and some care work may be routinely executed. '[R]outinized action can relieve the cognitive load on individuals' (Ellström, 2010, p. 34) and offer employees 'a feeling of security and stability' (ibid., p. 34). However, many work tasks presuppose employees who possess competence in specific areas (e.g., dementia), and reflexive practices emerge as an integrated part of staff members' daily practices. The general manager emphasised that, if they were to take inventory of the home, there would consequently be 'so much knowledge in this house': She continued, stating:

And it shows in people's hands, in the way they talk to residents, the way they talk about them. They wonder why things are as they are, why the patient behaves like this. We constantly engage in discussions about these issues.

This quote highlights how questioning and reflecting are highly valued approaches supported in interviews with staff who underscored that questioning is encouraged and that making mistakes is considered an unavoidable consequence in the quest to improve services.

When staff encounter a problem in their everyday practice, they are encouraged to thematise the issue at unit meetings, held daily when the morning shift starts. One such incident may involve challenging

behaviour from a resident; when such a problem is raised at a meeting, staff who work with the resident group together to discuss how they feel about the situation, which they often perceive differently. During these meetings, they also voice their fear of the challenging behaviour or their lack of confidence in their ability to handle situations that arise. Subsequently, the group implements some simple measures that, once decided upon, staff are expected to adhere to. A few weeks later, the group gathers again, evaluates the measures implemented, and decides what to do next.

Through the development conversations and in everyday practice, managers invite staff to actively engage in negotiations about what kind of community the nursing home should be and thus negotiate its enterprise (cf. Wenger, 1998, p. 80). Such negotiation is productive because it gives ‘rise to relations of mutual accountability among those involved’ (Wenger, 1998, p. 81); once managers and staff reach a decision on the introduction of a new procedure on how to provide care, all staff—regardless of expertise or position—is expected to implement it in their everyday practice.

Discussion

In his seminal theory-based article, Ellström (2010) argues for the need to acknowledge how practice-based innovation processes in organisations occur at the interplay between planned and ongoing change. The findings section provide empirical evidence for how planned change—that is, processes that arise from participation in formal learning situations—is tightly connected to the need for changes that staff identify in their everyday practices. Drawing on Ellström’s (2010) conceptual framework and the above findings, what conditions are important for this interplay between formal, planned learning and informal, everyday learning practices to occur, an interplay from which innovation’s potential arises? What prerequisites must be established for this interplay to occur and for innovation processes to unfold?

The findings demonstrate staff who actively participate in the service delivery process and the execution of routinised work whilst initiating new projects, reflecting on their actions, and identifying gaps in their competence. The findings also identified managers who have an eye for renewing their staff’s competence to improve the services offered to residents. The managers actively include their staff in professional development conversations and encourage them to participate in training courses, among other practices. The managers’ active role in including staff in making institution-wide decisions is considered important for learning and innovative practices to occur within elderly care services (Bezboruah et al., 2014; Brodtkorb et al., 2019; Totcheva et al., 2019). This Norwegian nursing home works systematically to facilitate professional activities and capacity building. The study demonstrates a robust workplace in which dynamic and active interaction are held between both formal and informal as well as individual and collective activities and learning processes.

There are two significant conditions identified for the interplay between formal, planned learning and informal, everyday learning practices to occur: the development of a ‘joint enterprise’ (Wenger, 2000,

p. 229), that is, an organisation in which employees and managers share specific goals and values, and the encouragement of reflexive practices. These conditions are illustrated in the model (see Figure 1).

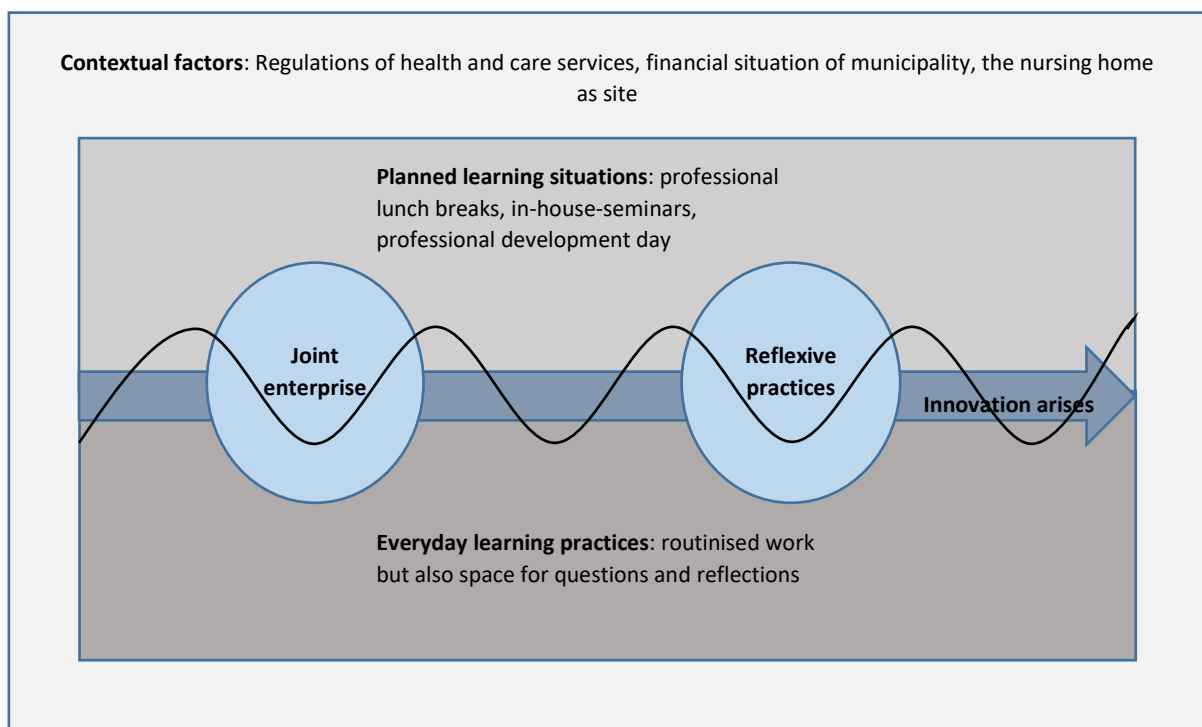


Figure 1. The interplay between planned learning situations, everyday learning practices, and innovation processes

The findings present a *joint enterprise* (Wenger, 2000, p. 229), which is a pattern of continuous work towards establishing ‘a shared repertoire of communal resources’ (Wenger, 2000, p. 229) that include ‘language, routines, sensibilities, artefacts, tools, stories, styles’ (ibid., p. 229). Gaps in staff’s competence and practices are thematised in the annual group development conversations with all staff members and are identified by employees in their everyday care work with residents. Managers work to foster a community by actively employing development conversations, professional lunch breaks, professional days, and so on. This may be conceptualized as a kind of ‘mutual engagement’ (Wenger, 1998, p. 137) in the sense that everyone is supposed to participate in the planned learning situations and consequently establish a collective repertoire—that is, a joint foundation—for knowledge and understanding. Managers encourage staff to be on the lookout for improvements in their everyday practices, and in line with this Eines and Vatne (2018) emphasise the importance of managers’

engagement for nursing home staff's innovative learning. The findings of this study reveal how the nursing home's managers cherish and acknowledge the importance of complementary competence by providing knowledge both with and without formal training to develop further staff's experience within their work processes. Ellström (2010) discusses two dimensions of such work processes: explicit and implicit. This study's findings identify both dimensions, as the explicit are the more formal and implicit the more informal everyday practices. With about 80 employees who possess diverse levels of formal training and 50 residents who possess complex and changing needs, this outcome will certainly never be fully realised, but will nevertheless remain in demand, longed for, and eventually become partially realised. Herein, the creativity of implicit work processes described by Ellström (2010) is valued as part of the informal everyday practices in which staff may solve problems in new and innovative ways.

Another important condition for the interplay between formal, planned learning and informal, everyday learning practices to occur is the prominent space afforded to *reflexive practices*, which emerge as an important element in the planned learning situations (e.g., the group meeting described above) and staff's everyday practices. Bruno et al. (2011) explain that reflexive practices are multidimensional, and argue that reflexivity is a prerequisite for professional work aimed at improving staff's ability to solve problems. The staff portray the workplace as one that encourages employees to ask questions about and reflect upon their own practice, and it is acceptable to ask other employees or managers if they are unsure how to solve a task because someone is often designated to answer questions or offer guidance regarding how to proceed. Moreover, staff emphasised that the nursing home is a workplace in which all staff remind one another about the procedures they must follow to make the nursing home a safe place for their residents. Staff perceive such reminders not as a critique, but rather as a sign of appreciation for the procedures that have been established to improve the nursing home's service delivery.

Both the managers facilitating for, and the staff's involvement in, decision-making processes is a prerequisite for learning and innovation and is localised in what Ellström (2010) refers to as explicit and implicit work processes institutionalised through the planned learning situations and the everyday learning practices within the nursing home. New ideas and measures for improving the services provided to residents are distributed between managers and staff. All these kinds of interventions and innovations are ensuring the democratic aspects of the work processes as well as establishing anchoring and ownership throughout the whole organisation. These factors are altogether a prerequisite for meeting the challenges within and for improving the quality of the elderly care delivery.

Conclusions

Like all research, this article has noteworthy limitations. One limitation is that the article is somewhat underdeveloped with respect to a systematic literature review. It is therefore suggested that a scoping

review exploring existing literature on workplace learning (informal learning; formal learning) and innovation in nursing homes could be an appropriate way forward, as our experience is that research efforts on this topic is sparse.

Despite these limitations, this article shows that nursing homes can be rich environments for learning and innovation and for discovering new ways to bridge gaps and overcome challenges while delivering high quality and sustainable care. The healthcare service system's conditions are changing, which is particularly important as the ageing population is increasing alongside the demand for high-quality services. This situation implies that professionals in elderly care will face 'disruptions' in their daily work due to both large (radical innovations) and small changes (incremental innovations). In order to face these disruptions productively and creatively, a supporting learning environment is crucial. Regardless of whether elderly care is home based or provided at an institution, it is rarely regarded as a frontline for innovation (Kamp and Hvid, 2012; Wegener and Tanggaard, 2013). Nevertheless, recent studies as well as this study indicate that nursing homes can indeed develop through learning and innovation and thereby increase the quality of the care they provide. We suggest more studies that take the everyday work practices of care professionals as a point of departure for learning and thus for innovation. By paying attention to care workers' changing participation in everyday workplace practices, the care professionals themselves, elderly care managers and researchers alike can identify context specific drivers for innovation and learn from successes.

References

- Aakjær, M.K. (2014) *Reconfiguring Boundaries in Social Innovation. Co-Creating New Meaning and Practice in a Prison Context*, Department of Education, Aarhus University, Copenhagen, Denmark.
- Adams, J., Verbeek, H., and Zwakhalen, S.M.G. (2017) 'The impact of organizational innovations in nursing homes on staff perceptions: a secondary data analysis', *Journal of Nursing Scholarship*, Vol. 49 No. 1, pp. 54–62. doi:10.1111/jnu.12271
- Berntsen, K. and Bjørk, I.T. (2010) 'Nursing students' perceptions of the clinical learning environment in nursing homes', *Journal of Nursing Education*, Vol. 49 No. 1, pp. 17–22. doi:10.3928/01484834-20090828-06
- Bevan, H. (2012) 'A trilogy for health care improvement: quality, productivity and innovation', in Spurgeon, P., Cooper, G.L., and Burke, R.J. (Eds.), *The Innovation Imperative in Health Care Organisations: Critical Role of Human Resource Management in the Cost, Quality and Productivity Equation*, Edward Elgar Publishing, Cheltenham, pp. 37–61.
- Bezboruah, K.C., Paulson, D., and Smith, J. (2014) 'Management attitudes and technology adoption in long-term care facilities', *Journal of Health Organization and Management*, Vol. 28 No. 3, pp. 344–365. doi:10.1108/JHOM-11-2011-0118
- Billett, S. (2004) 'Workplace participatory practices: conceptualising workplace as learning environments', *Journal of Workplace Learning*, Vol. 16 No. 6, pp. 312–324.

- Billett, S. (2012) 'Explaining innovation at work: a socio-personal account', in Høystrup, S., Bonnafous-Boucher, M., Hasse, C., Lotz, M., and Møller, K. (Eds.), *Employee-Driven Innovation: A New Approach*, Palgrave Macmillan, London, pp. 92–107.
- Billett, S. and Choy, S. (2013) 'Learning through work: emerging perspectives and new challenges', *Journal of Workplace Learning*, Vol. 25 No. 4, pp. 264–276.
- Braun, V. and Clarke, V. (2006). 'Using Thematic Analysis in Psychology'. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Brodtkorb, K., Skaar, R., and Slettebø, Å. (2019) 'The importance of leadership in innovation processes in nursing homes: an integrative review', *Nordic Journal of Nursing Research*, Vol. 39 No. 3, pp. 127–136. <https://doi.org/10.1177/2057158519828140>
- Bruno, A., Galuppo, L., and Gilardi, S. (2011) 'Evaluating the reflexive practices in a learning experience', *European Journal of Psychology Education*, Vol. 26, pp. 527–543. doi:10.1007/s10212-011-0061-x
- Chisholm, L., Zimmerman, S., Rosemond, C., McConnell, E., Weiner, B.J., Lin, F-C., and Hanson, L. (2018) 'Nursing home staff perspectives on adoption of an innovation in goals of care communication', *Geriatric Nursing*, Vol. 39, pp. 157–161. <https://doi.org/10.1016/j.gerinurse.2017.08.001>
- Darsø, L. and Høystrup, S. (2012) 'Developing a framework for innovation and learning in the workplace', in Melkas, H. and Harmaakorpi, V. (Eds), *Practice-Based Innovation: Insights, Applications and Policy Implications*, Springer, Berlin, Germany, pp. 135-154.
- Davies, A. and Boelman, V. (2016) *Social Innovation in Health and Social Care*. Available at: https://www.siceurope.eu/sites/default/files/field/attachment/social_innovation_in_health_and_social_care_january_2016.pdf (accessed 24 09 2019).
- Eines, T.F. and Vatne, S. (2018) 'Nurses and nurse assistants' experiences with using a design thinking approach to innovation in a nursing home', *Journal of Nursing Management*, Vol. 26, pp. 425–431. <https://doi.org/10.1111/jonm.12559>
- Eines, T.F., Angelo, E., and Vatne, S. (2019) 'Discourse analysis of health provider's experiences using service design', *Nursing Open*, Vol. 6, pp. 84–92. doi:10.1002/nop2.191
- Ellström, P.E. (2010) 'Practice-based innovation: a learning perspective', *Journal of Workplace Learning*, Vol. 22 No. 1/2, pp. 27–40.
- Ellström, E., Ekholm, B., Ellström, P-E. (2008), 'Two types of learning environment: Enabling and constraining a study of care work', *Journal of Workplace Learning*, Vol. 20 Iss: 2 pp. 84 – 97
- Eraut, M. (2004) 'Informal learning in the workplace', *Studies in Continuing Education*, 26:2, 247-273, DOI: 10.1080/158037042000225245
- Fuglsang, L. (2010). Bricolage and invisible innovation in public service innovation. *Journal of Innovation Economics*(1), 67-87.
- Fuller, A., Halford, S., Lyle, K. Taylor, R., and Teglborg, A-C. (2018) 'Innovating for a cause: the work and learning required to create a new approach to healthcare for homeless people', *Journal of Education and Work*, Vol. 31 No. 3, pp. 219–233.

- Glette, M.K., Røise, O., Kringeland, T., Churruca, K. Braithwaite, J., and Wiig, S. (2018) 'Nursing home leaders' and nurses' experiences of resources, staffing and competence levels and the relation to hospital readmissions – a case study', *BMC Health Services Research*, Vol. 18, p. 955. <https://doi.org/10.1186/s12913-018-3769-3>
- Holland, D., & Lave, J. (2009). 'Social practice theory and the historical production of persons'. *Actio: An International Journal of Human Activity Theory*, 2(1), 1–15.
- Kamp, A., and Hvid, H. (2012) *Elderly Care in Transition: Management, Meaning and Identity at Work: A Scandinavian Perspective*, Copenhagen Business School Press, Copenhagen, Denmark.
- Lave, J. (2019) *Learning and Everyday Life. Access, Participation, and Changing Practice*. Cambridge University Press, Cambridge, UK.
- Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*, Cambridge University Press, New York, NY, US.
- LeCompte, M.D. and Schensul, K.J. (2010) *Designing and Conducting Ethnographic Research: An Introduction*, AltaMira Press, Lanham, MD, US.
- Nicolini, D., Gherardi, S., and Yanow, D. (2012) *Knowing in Organizations, A Practice-Based Approach*, Routledge, New York, NY, US.
- Pedersen, A.W and Kuhnle, S. (2017) 'The Nordic welfare state model: 1 Introduction: the concept of a "Nordic model"', in Knutsen, O.P. (Ed.), *The Nordic Models in Political Science: Challenged, but Still Viable?* Fagbokforlaget, Bergen, Norway, pp. 249–272.
- Totcheva, C.Ø., Vedeler, J.S., and Slettebø, Å. (2019) 'Forutsetninger for vellykket sosial innovasjon i sykehjem: ledernes perspektiv – en kvalitativ intervjustudie', *Nordisk Tidsskrift for Helseforskning*, Vol. 15 No. 1. doi:<https://doi.org/10.7557/14.4645>
- Verleye, K. & Gemmel, P. (2011). Innovation in the elderly care sector - at the edge of chaos. *Journal of Management & Marketing in Healthcare*, 4(2), 122-128.
- Wadensten, B. (2010) 'Changes in nursing home residents during an innovation based on the theory of gerotranscendence', *International Journal of Older People Nursing*, Vol. 5, pp. 108–115.
- Wenger, E. (1998) *Communities of Practice. Learning, Meaning, and Identity*, Cambridge University Press, Cambridge.
- Wenger, E. (2000) 'Communities of practice and social learning systems', *Organization*, Vol. 7 No. 2, pp. 225–246.
- Wenger E. (2010) 'Communities of practice and social learning systems: the career of a concept', in Blackmore, C. (Ed.), *Social Learning Systems and Communities of Practice*, Springer, London, pp. 179-198.
- Wegener, C. (2016) 'Driving forces of welfare innovation – explaining interrelations between innovation and professional development', in Billett, S., Dymock, D., and Choy, S. (Eds.), *Supporting Learning Across Working Life: Models, Processes and Practices*, Springer, Dordrecht, Netherlands, pp. 113-127.
- Wegener, C. (2012) Public sector innovation: Value creation or value loss? *Lifelong Learning in Europe*, (4), online publication.

Wegener, C. and Tanggaard, L. (2013) 'The concept of innovation as perceived by public sector frontline staff – outline of a tripartite empirical model of innovation', *Studies in Continuing Education*, Vol. 35 No. 1, pp. 82–101. <https://doi.org/10.1080/0158037X.2012.707123>

Williams, K.N., Perkhounkova, Y., Bossen, A., and Hein, M. (2016) 'Nursing home staff intentions for learned communication skills', *Journal of Gerontological Nursing*, Vol. 42 No. 3, pp. 26–34. doi:10.3928/00989134-20160212-06

Øye, C., Mekki, T.E., Jacobsen, F.F., and Førland, O. (2016) 'Facilitating change from a distance – a story of success? A discussion on leaders' styles in facilitating change in four nursing homes in Norway', *Journal of Nursing Management*, Vol. 24, pp. 745–754. doi:10.1111/jonm.12378