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Management challenges for future digitalization of healthcare services

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ABSTRACT

eHealth is considered a solution to current challenges in healthcare. However, its use is not very well developed, and its potential has been little exploited. There are many reasons for the limited diffusion of eHealth. Knowledge, opportunities for training and collaborative activities are examples of factors that influence diffusion. Managerial responsibility is decisive in transforming healthcare. This paper aims at exploring middle management strategies that can facilitate workplace learning when introducing eHealth and new ways of providing healthcare. Introduction of eHealth will imply new and innovative working processes, where both employees and managers need to be aware that their work will change fundamentally, from routine work to work that involves learning, skills development and continuous changes in work practice. This study takes a qualitative approach by analysing data collected through focus group interviews. The findings indicate a necessity for a shift towards learning-oriented leadership and adaptive management that emphasizes employee involvement and opportunities for learning. Helping employees make sense of the complexities associated with continuously changing work practices is another identified middle management strategy. Scenario planning and backcasting stand out as suitable tools for sensemaking in complex organizations and as techniques that can promote workplace learning.

1. Introduction

Transformations in healthcare towards digitalization and increased use of eHealth are considered a solution to current societal challenges (Lindberg, Lindberg, & Söderberg, 2017). However, the use of eHealth is not very well developed and its potential has been little exploited (Gjesten, Wiig, & Testad, 2017). Demographic changes resulting in a mismatch between the numbers of people in need of healthcare and the resources available to meet those needs, more people living with chronic diseases and growing healthcare costs are some of the challenges necessitating transformation in healthcare (Johansen & van den Bosch, 2017; Kroezen, van Hoegaerden, & Batenburg, 2018). Factors such as experience, skills, training and knowledge, expectations of the technology and its use, power relations and existing technology are other elements that may limit the use of eHealth (Cresswell & Sheik, 2013; Orlikowski, 2000).

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The demand for transformation when using eHealth requires both managers and employees to adapt to new needs and demands of future working life (van Reedt Dortland, Voordijk, & Dewulf, 2014). Managers at different levels of an organization all share responsibility for and play a vital role in organizational change, but they have different areas of responsibility and jurisdiction (Maniam, 2012). Glaser, Fourné, and Elfring (2015) describe the difference as the top management having a role predominantly as decision-makers whereas development of tactical objectives and executive strategies are the focus of middle managers. This study focuses on middle managers because of their central position as frontline managers, placed in a hierarchy between employees and executives (Hartviksen, Aspfors, & Uhrenfeldt, 2019). Positioned on a level close to everyday work practice, middle managers are crucial in facilitating work and learning at the workplace (Hartviksen et al., 2019), as well as in articulating tactics to achieve strategies decided by the top management (Salih & Doll, 2013). Our understanding of the term middle manager is in line with that of Gutberg and Berta (2017, p. 3) who define it as “any individual in an organization who operates above the frontline of the organization, but below the level of senior management”. Much of the research on managers uses the word *manager* in general terms without defining where in the hierarchy specific managers are situated. In this paper, we will apply theory that adopts a general approach to the term management as well as theory that more specifically focuses on middle managers.

The capacity of managers in healthcare organizations to bring about future change is being challenged (Maurer & London, 2018; Yoon, Lee, & Schniederjans, 2016), and traditional command and control leadership style is ineffective when meeting the need for transformation of future workplaces (Malloch, 2010). A gap between complex managerial responsibilities and the number of managers who consider themselves lacking competencies and preparation for future transformation of the healthcare sector has been identified (Clarke et al., 2012). Healthcare managers face complex challenges in both the adoption of new technology and the development of new products and services (Kim, Gaukler, & Lee, 2016).

Knowledge as integrated with work activities is a research domain with various approaches that focuses on the relationship between people, knowledge and work (Billett, 2004; Fuller, Hodkinson, Hodkinson, & Unwin, 2005), and this relationship is central to our study. We will focus on middle managers and employees working in healthcare services and their workplace learning. In this paper, workplace learning is understood as a broad approach to designate formal and informal learning related to paid work (Fenwick, 2008) and as a “type of experiential learning activity for the purpose of acquiring the competence necessary to meet current and future work requirements” (Jacobs, 2009, p. 134). Organizations and employers demand that employees learn and work faster, that creation of knowledge and learning take place continuously, and that sharing knowledge will promote learning in groups and throughout the organization (Marsick & Watkins, 2003).

Thus, managers need strategies for making crucial future decisions that take uncertainties into account (Derbyshire, 2017). Scenario planning, with broad participation of stakeholders, is a useful approach to structure and guide transformations and thinking on future uncertainties in healthcare organizations (van Reedt Dortland et al., 2014). Using scenario planning helps managers to make better sense of diverging interests and values, of existing or emerging problems, and to find common ground for future action (Volkery & Ribeiro, 2009).

Despite the consensus on the importance of workplace learning, there is a need for greater insight into how people can learn through work (Billett, 2011). Gutberg and Berta (2017) call for more knowledge of middle managers’ contribution to strategy and organizational change, and how they can handle issues associated with future workplace learning (Ingebrigtsen et al., 2014; Yamazaki, Toyama, & Putranto, 2018).

This paper highlights perceptions of existing experiences expressed by different stakeholders in municipal healthcare services; such perceptions could create a common ground for middle managers’ tactical objectives and executive strategies regarding the transformation of future healthcare services. The aim of this paper is to explore middle managers’ strategies that can facilitate workplace learning when introducing eHealth and new ways of providing healthcare services in line with the strategies of the organizations.

Findings from an ongoing longitudinal study conducted in public healthcare services in municipalities in Norway and Sweden form the basis for this study. The paper presents theoretical and methodological approaches. Findings are presented and thereafter discussed. Finally, the paper is summarized, and implications for future research are raised.

2. Theoretical approaches

Adequate leadership is important (Olsen, Glad, & Filstad, 2018). This section deals with strategies related to management styles, and tools and actions for managers.

2.1. A new middle management capacity to shape a learning organization

Middle managers play a decisive role in forming a basis for future learning environments in organizations as well as being the driving force for developing future healthcare services (Gutberg & Berta, 2017). However, increased complexity and uncertainty are difficult for middle managers to take into account. When developing new ways of providing healthcare, learning processes change from mainly a need for identifiable knowledge or skills that managers can control to what Engeström (2001, p. 137) describes as “people and organizations are all the time learning something that is not stable, not even defined or understood ahead of time”. Traditionally, leadership and management have been based on a top-down hierarchical and bureaucratic structure (Axelsson, 2000), but the changes of the twenty-first century require a new kind of leadership (Marques, 2015). Engeström (2001, p. 140) states that “top-down commands and guidelines are of little value when the management does not know what the content of such directives should be”.

The ongoing shift from traditional hierarchical management towards a more process-oriented way of managing is belated (Nilsson

& Sandoff, 2015). Since the introduction of reforms and principles from the private sector such as new public management in the 1980s, management and especially middle managers in healthcare have experienced a shift in the opposite direction (Hartviksen et al., 2019). Middle managers in healthcare are often members of specialized professional groups and traditionally professional authority, the staff and their previous experience have formed the basis of their leadership (Gutberg & Berta, 2017; Hartviksen et al., 2019). With reforms dominated by managerial values like top-down leadership, managers or decision-makers will tend to restrict their attention to the current way of providing healthcare whilst ignoring the possibility of transforming the healthcare services (Ocasio, 1997). Managers choose their foci of attention based on a deliberation between *issues* as their available repertoire of categories for making sense of the environment on the one hand and *answers* as the available repertoire of action alternatives on the other (Ocasio, 2011). Middle managers' available repertoire of categories for sensemaking, as well as their repertoire of alternatives for action, will depend upon whether the focus of attention is on commands and guidelines from the top management or on communication and hands-on knowledge about work practice from frontline employees. Gutberg and Berta (2017, p. 2) refer to this phenomenon of middle managers' contextual constraints as being "stuck in the middle". On the other hand, the position between top management and frontline employees provides middle managers with the opportunity to facilitate communication throughout the organization and thereby influence organizational changes (Gutberg & Berta, 2017).

Nilsson and Sandoff (2015) state that collaboration with different representatives, both within and across organizations, is needed in future management. The leadership style of adaptive management aims at managing and improving based on "learning from the outcome of implemented management strategies" (van der Voorn, Pahl-Wostl, & Quist, 2012). Middle managers often have a similar professional background to frontline employees. Their experience from practice may be an advantage when learning by evaluating the outcome of an intervention or strategy put into practice. Adaptive management emphasizes a human dimension and is founded on a bottom-up approach where multiple stakeholders are involved to present their understandings of and perspectives on future healthcare services. Although it is crucial to involve stakeholders in developing future healthcare services, this also implies challenges in disengaging them from focusing on the present way of providing services. Vergragt and Quist (2011, p. 750) relate such challenges to the fact that stakeholders represent "present-day interests and values, and have great difficulties disengaging from them". According to van der Voorn et al. (2012, p. 349), adaptive management includes learning as an integral part because it is "putting in place both learning processes and the conditions needed for learning processes to take place".

Learning-oriented leadership represents another shift due to both management traditions and the way managers work to promote learning and skills development among employees (Ellström & Ellström, 2018). Facilitating and promoting learning will lead to further transformation of organizations and workplaces. Two logics of management and learning, namely developmental learning and performative learning, characterize learning-oriented management. Awareness and knowledge of these two forms of management and learning may be helpful when middle managers are establishing strategies to facilitate learning in rapidly changing organizations. The logic of performative learning can be described by the keywords production, mastery of given tasks, standardization and routines (Ellström & Ellström, 2018). New thinking and knowledge development entailing "action and learning that calls for risk-taking and a capacity for critical reflection" are characteristic of development learning (Ellström, 2010, p. 8). Facilitating learning in workplaces that are under transformation and where learning needs are not defined require middle managers to take risks and possess a capacity for critical reflection. Perceived lack of competence and poor support from top management may constrain middle managers' ability to facilitate developmental learning (Clarke et al., 2012).

Another perspective on management and the workplace as a learning environment is presented in Billett's (2004) workplace participatory practices. Participatory practices at the workplace depend on a mutuality between opportunities offered by the workplace or management, and the way individuals or employees take part in, and contribute to, activities and interactions related to those opportunities (Billett, 2004). In a study of informal learning in three professional areas, Eraut (2011, p. 8) concluded: "given favorable conditions, learning in the workplace can be enhanced by improving opportunities for productive engagement in a wide range of work processes". The activities and possibilities for interactions afforded by the workplace, as well as support and praise for employees for their efforts, are determined by the goals and established practices at the workplace (Billett, 2004). These goals and established practices are often based on guidelines and constraints defined by top management. Middle managers make their mark on the learning environment and learning opportunities for employees when translating and communicating top-level policies and strategies from the top to the frontline (Clarke et al., 2012). Achieving workplace learning requires both facilitation by middle managers and engagement by employees. In the study by Clarke et al. (2012), one of the participants stated that to be able to change and improve practice it is necessary to have time to reflect on this, and not only think of production requirements.

Organizational change "should, can and must be managed" (Thurlow & Mills, 2009, p. 459). With the approach of adaptive management and learning-oriented leadership, the different stakeholders may be involved and invited to share their experiences, leading to more thinking outside the box to create scenarios for the desired future healthcare service.

2.2. Sensemaking for future management of healthcare services

Sensemaking can be seen as a system of interactions between different actors who make sense of a situation, ideally building a collective understanding (Louis, 1980). Weick, Sutcliffe and Obstfeld (2005) describe collective understanding as a common ground people achieve through labelling and categorizing experiences and events. The sensemaking perspective can be especially useful in order to understand digitalization in organizations in a micro-perspective (Weick, 1995). Sensemaking is triggered by discrepancies (Thiry, 2001) and is specifically associated with ambiguity and uncertainty in organizations, which in turn require that individuals find meaning (Weick, 1995). Through social interaction between individuals at the workplace, effective communication based on cooperation and a shared frame of reference should be achieved in the sensemaking process (Thiry, 2001). Cooperation between different

stakeholders depends on them having a kind of common assumption of the situation, and middle managers are responsible for enabling employees to experience sense in that common ground. Weick et al. (2005) use the term functional deployment to mean the labelling of experiences and events in a way that leads to suggestions for actions and coordination. Sensemaking and learning are highlighted as cognitive processes that take place simultaneously (Schwandt, 2005). Middle managers need to develop deep understanding and foresight of how new situations will affect employees, their understanding and need for learning in relation to new ways of performing their work. Managers do not only need to learn how to make sense, but also need to learn how to learn (Schwandt, 2005; Weick, 1995). Learning how to learn is relevant for middle managers themselves, but they must also help employees to learn how to learn. Uncertainties and complexity in transforming healthcare may create an unpredictable work situation and resistance to further development among healthcare staff. Preventing communication breakdowns and providing employees with necessary information and knowledge will facilitate change readiness and enable them to contribute to the transformation process (Bateh, Castaneda, & Farah, 2013). Managers' learning processes are reflective, as they have to understand how information is given meaning and becomes useful knowledge in the social context of the workplace (Schwandt, 2005). The strength of employees is that their involvement can make available current contextual knowledge (van der Voorn, Quist, Pahl-Wostl, & Haasnoot, 2015).

Thus, scenario planning may be a useful tool in continuing the process from the common ground into further development of future scenarios for the transformation of healthcare services. The scenario planning technique mainly aims at enhancing understanding, challenging conventional thinking and improving decision-making (Derbyshire & Wright, 2017) by pointing out the mental models supporting organizational reasoning and action (Korte & Chermack, 2007). Although scenario planning is referred to as a technique, Vollmar, Ostermann, and Redaelli (2015, p. 6) state that there is no "clear-cut scenario method". Chermack, Lynham and van der Merwe (2006, p. 774) refer to scenario planning as "largely an exercise in communicating points of view", or "outlines of possible futures" that are not comprehensive pictures nor complete or correct (Vollmar et al., 2015, p. 2). Using scenario planning increases organizational learning and facilitates "empowering people" (Chermack et al., 2006). As part of scenario planning, middle managers should facilitate an interdisciplinary approach in the transformation of healthcare services as well as in the activities promoting learning and future-oriented ways of thinking (Vollmar et al., 2015). Both employees with hands-on knowledge of practice and top managers as decision-makers should be involved. As an example, elaboration of different scenarios for the organization of future healthcare services will expose potential obstacles; this will provide middle managers and employees with directions for the transformation of healthcare and for workplace learning (Oliver & Parrett, 2017).

Backcasting may represent another useful tool for developing future healthcare services and aiding involvement and learning. Since scenarios are mainly forward-looking, describing the desired future, the use of backcasting will provide deeper insight into problems with their complexities and uncertainties. Vergragt and Quist (2011, p. 747) describe backcasting as generating a "desirable future, and then looking backwards from that future to the present in order to strategize and to plan how it could be achieved". The rapidly transforming healthcare sector and implementation of eHealth interfere with current organizational activities and trigger a need for intensive sensemaking efforts now and in the future (Sandberg & Tsoukas, 2015).

van der Voorn et al. (2012) state that "we know so little about the future, it needs to be conceptualised as being emergent and only partially knowable". What has happened in the past and how healthcare services are provided in the present will influence the transition to future services.

3. Method

The choice of a qualitative approach was motivated by the objective to explore people's views and experiences, as qualitative research embodies "a view of social reality as a constantly shifting emergent property of individuals' creation" (Bryman, 2016, p. 33).

3.1. Data collection

The data collection method was interviews conducted in focus groups in two rounds with four-month intervals, with three groups in each round. Two moderators from the research team led the interviews in each focus group. One of the moderators was active, while the other one listened and could follow up on points if needed. Focus group interviews were considered an appropriate method for data collection in order to "develop an understanding about *why* people feel the way they do" (Bryman, 2016, p. 502). Conducting interviews in focus groups allows people to probe each other's reasons for holding a certain view, and in line with sensemaking the process will provide the participants with a common understanding of experiences and events. The complexity and uncertainty associated with digitalization of future healthcare argues for a broad approach to the research topic, "responding to the direction in which interviewees take the interview and perhaps adjusting the emphases in the research as a result of significant issues emerging..." (Bryman, 2016, p. 467). Interviewing in focus groups also enabled learning for the individuals in the organizations included. The interview setting allowed participants to share their present and past work experiences, talk about the future, and exchange ideas on possible strategies to meet future challenges. It was also a suitable setting for collecting data on interaction between participants (Bryman, 2016; Halkier, 2010). Mutual interaction may facilitate mobilization and activation of the participants in a way that is not possible in individual interviews (Halkier, 2010). Allowing the participants to interact and jointly discuss their views, experiences and expectations was considered beneficial for gaining access to rich data. Furthermore, the moderators made efforts to build trust and create a relaxed environment where all participants could engage in the discussion. The knowledge that emerged through the focus groups can form a basis for identifying obstacles as well as finding relevant strategies for middle management to transform healthcare services and facilitate workplace learning.

The instrument used was a semi-structured interview guide mainly organized by themes. According to Bryman (2016, p. 466),

open-ended qualitative interviews emphasise the participants' perspective as opposed to a quantitative approach where interviews are standardized with clearly specified research questions enabling "reliability and validity of measurement of key concepts...". Participants were encouraged to collectively reflect upon and discuss specific themes presented by the moderators. All focus group interviews were recorded and transcribed; recording the interviews made it easier for the moderators to concentrate on the discussion (Bryman, 2016). In the first round of interviews, the main focus was on discussions of past and present experiences. The themes were related to previous experience with eHealth and digitalization, organization and decision-making, experiences of working with organizational change and innovations and the potential for working with digitalization and transformation in the future. Initially in the second round, preliminary results from the first round were presented. The summary from the first round formed the basis for the themes in the interview guide for the second round as well as providing the participants with a common ground of understanding. The themes in the second round were challenges in introducing technological solutions and new modes of working, organizational change and changing work (based on obstacles identified and discussed in the first round of interviews) as well as professional and technological learning needs. Discussions related to future healthcare services were more apparent in the second round. The participants described and discussed different scenarios and outlines of future healthcare services, although the use of scenario planning was not part of the method chosen for the study. The idea of the possible use of scenario planning as a tool partly arose from the work on processes in the focus groups.

3.2. Participants and research context

This study forms part of an "Interreg Sweden-Norway" project conducted in municipal healthcare services on both sides of the border, including academic institutions, municipalities and businesses. The municipalities have similar challenges related to infrastructure and work- and health-related issues. The participating municipalities were recruited through existing networks between university colleges, universities, other institutions and municipalities. Top managers and established contacts in the healthcare services recruited participants for the focus groups. Bryman (2016, p. 509) describes *key informant recruitment* as entailing "stakeholder organizations actively assisting in the recruitment of participants". The selection criteria for the participants were employees and middle managers who had either worked on issues such as transformation in healthcare and/or had experience from using eHealth. Transformation and digitalization of future healthcare services involve a wide range of processes and stakeholders. Because of that complexity, we were interested in gaining insight into experiences and reflections on the past, present and future from key stakeholders such as frontline employees, middle managers and participants from small businesses involved. Thirty-one persons participated. In the first round, ten middle managers, eight employees and one participant from a small business were divided into three groups. The participants were distributed to create heterogeneous groups, based on nationality, position in the organizational hierarchy and professional background. The middle managers had backgrounds as nurses, organizational developers and social educators. Participating employees worked as nurses, social educators, occupational therapists, physiotherapists and in the municipal IT department. Among the 15 participants in the second round, there were eight middle managers, five employees and two persons from small businesses. The professional backgrounds among the middle managers were similar to the first round, as were the professions of the employees. The participants from small businesses were included since they represent stakeholders who are relevant partners for the municipal healthcare services.

3.3. Data analysis

All focus group interviews were recorded, and subsequently transcribed and analysed using thematic analysis. Braun and Clarke (2006) describe thematic analysis as a flexible method that can be applied across a range of theoretical and epistemological approaches. We used thematic analysis to identify key patterns and themes (Braun & Clarke, 2006). The coding of the data followed an approach similar to the six phases described by Braun and Clarke (2006). In the first phase, we aimed at familiarizing ourselves with our data. This phase mainly focused on the process of transcribing the interviews. All researchers contributed to the transcriptions in order to gain broader knowledge of the data by transcribing interviews in which they did not take part. Initial codes were generated through the second phase by rereading the interviews, during which we took notes or marked interesting features. In the third phase, the transcriptions marked with interesting features were read again in search of themes. To ensure that all researchers were familiar with the entire corpus, all of us read all transcriptions to review noted codes and themes. The researchers worked together in defining and naming the themes in the fifth phase. The overall aim of the collaborative approach in that phase was to reduce the risk of misinterpretations in coding and defining themes. The last phase in thematic analysis is related to the process of writing (Braun & Clarke, 2006). Throughout the writing of the paper, we have, both individually and collectively, continued the analysis in light of the theoretical approaches presented.

The focus group interviews were transcribed and analysed in a way that differentiated between participants from Sweden and Norway and between the various professions among the employees. Since our analysis did not identify any systematic differences based on nationality or profession, the results are presented as a whole.

3.4. Methodological reflections

The heterogeneity of the participants in each focus group may have affected the lack of differences in opinion, since they had limited opportunity to establish a common ground for their discussions, which became rather general. Creating more homogenous groups working within the same "reality" could have provided the participants with a better opportunity to probe each other's reasons

and to achieve a better understanding of their specific workplace.

The different approaches to the use of the term manager in earlier research were mentioned in the introduction, and we found that the focus group participants used the term in a similar way to this. Middle managers, employees and participants from small businesses mostly referred to managers without placing them on a hierarchical level or defining whether they meant themselves as middle managers, other middle managers or top managers. Using a quantitative approach with structured interviews could have provided discussions with a more explicit use of the term manager by “reducing error due to variation in the asking of questions” as well as the contextual variations (Bryman, 2016, p. 198). The recruitment of participants was carried out by top managers and other established contacts. By explicitly asking for the involvement of top managers, the discussions on understandings of the term manager and on decisions and organizational implementation might have been more nuanced.

4. Findings

The analysis of the transcribed interviews revealed two main themes: “need for increased knowledge and competence” and “transformation of the workplace and lack of involvement creates uncertainty”. Lack of competence, the importance of managers taking the lead and recognizing the benefits of digitalization and development, lack of time and lack of collaboration and co-creation were recurring factors in the data related to the first theme. The second theme included apprehension due to changes, lack of involvement and communication, lack of knowledge about work and responsibilities of different organizational levels and perceived top-down steering.

4.1. Need for increased knowledge and competence

It appeared to be a general perception among both middle managers and employees that many managers lack competence regarding innovation processes and organizational development. Managers were described as lacking knowledge of how to manage organizational changes, such as how to present ongoing and future changes to employees. One of the participants working in IT illustrated the need for competence among managers as “... we are in need of competence related to a ‘driver’ in projects, we have to have someone with knowledge of what to do”. Managers being responsible for change processes and clarifying the benefits to their employees were discussed in another group. The participants talked about how management must set a good example for staff by using technologies in practice, demonstrating their functionality and clarifying the benefits of changing technologies. The importance of having managers who recognized the need for technology and focused on competence development were emphasized in all groups. One of the middle managers stated that if managers are not convinced of the positive effects of using eHealth, implementation in the front line will never succeed.

Another middle manager and former head of human resources mentioned the importance of prioritizing learning and competence development, e.g. through a train-the-trainer programme. Learning should involve practical training in how to use specific types of technologies, but also development of general competence related to organizational change. To the nodding heads of all the participants in the focus group, one middle manager said: “... this is much about getting an understanding, both upwards and downwards in the organization, and it takes a lot of time to implement eHealth, although many people think that it is a quick fix”. Across the different groups, there was consensus that many employees lacked knowledge of how to use digital tools and eHealth, and that they had insufficient time to learn new skills properly. One middle manager pointed out the challenges as “... it takes some time to learn, to dare to try, and they need to have that time”.

Another factor brought up by the participants was interdisciplinary collaboration and how that can lead to new knowledge and new competencies. Another suggestion was organizational change towards more collaboration, both within each department and with staff from other departments with other competencies. Instead of top-down management, several participants pointed out a need for more active management, where both managers and employees can come up with suggestions. The importance of employees having the opportunity to learn together and co-create knowledge was also highlighted.

4.2. Transformation of the workplace and lack of involvement creates uncertainty

A certain degree of apprehension among employees due to changes in work tasks and new roles was described. In the discussion, participants linked this apprehension to employees’ experience of little involvement in change processes. Several of the participants argued that employees’ lack of understanding of the processes and the need for change was a consequence of the complexity and uncertainties related to future needs. Management strategies for change were described as critical and crucial. One middle manager reflected on the advantages of working closely with employees and patients by saying: “the managers are in their offices working on a wide range of subjects resulting in the practical part of the work being pushed aside”. This middle manager explained further how employees and even middle managers who represent everyday work practices are “pushed aside” and prevented from participating in processes where new ideas on healthcare service provision are elaborated.

Another middle manager recently promoted from employee to manager referred to what seemed to be a common impression, namely that decisions related to change, such as what technologies and methods of service provision to use, were made by an unidentified person on a higher level in the hierarchy. The whole group agreed when the same middle manager shared reflections that lack of involvement of employees creates an idea that changes are exclusively implemented in order to save money, which in turn makes employees lose sight of the value of the changes.

5. Discussion

This paper is based on a thematic analysis of data from focus group interviews representing both obstacles and drivers related to the introduction of eHealth and transformation of healthcare. A top-down approach to the transition processes with limited focus on involving employees created a feeling of uncertainty. Both middle managers and employees talked about how such uncertainty often leads to scepticism and resistance to change. Discussions revealed a common experience and concern related to a mismatch between the demand for transforming healthcare services and the knowledge managers and employees need to be able to implement such transformations. Middle managers need to adopt new strategies in order to make learning an integral part of work.

In the following discussion, identified obstacles and drivers from the findings will be discussed in exploring strategies middle managers can use to facilitate workplace learning when introducing eHealth and new ways of providing healthcare services.

5.1. Middle managers' approach to leadership as a basis for workplace learning

A wide range of participants expressed dissatisfaction with managers not taking their responsibility as leaders in transformation processes. The importance of adequate management steering and the decisive role of managers concurs with earlier research (Olsen et al., 2018; Yamazaki et al., 2018). Hartviksen et al. (2019) point out that middle managers positioned closest to employees and everyday practice were crucial in the transformation of healthcare services, which concurs with opinions among middle managers and employees from both countries in all focus groups. No participants clearly stated the level of management they were referring to in their discussions. Not explicitly including the participating middle management when talking about managers may be seen in relation to the strict hierarchical management in healthcare, where middle managers often experience constraints in dividing their attention between the interests of top management and those of frontline employees (Gutberg & Berta, 2017). The seemingly limited acknowledgement of middle managers' responsibility was also illustrated by the middle manager who received considerable support when stating that important decisions were made by an unidentified person on a higher level in the hierarchy, i.e. a level of managers not close to practice. However, stating that managers "up there" are responsible is not enough; it is equally important to discuss the style and characteristics of the leadership.

One of the themes crystallized through the analysis was the lack of involvement of employees, which suggests a generally production-oriented leadership such as new public management (Clarke et al., 2012; Hartviksen et al., 2019). Established practice in many workplaces seems to place low priority on involving employees. Being possible intermediaries between top management with its guidelines and constraints and frontline employees, middle managers need to take active leadership at their level. Traditional middle management has been characterized by professional experience, hands-on knowledge and closeness to the frontline employees, which are characteristics well suited to the approach of adaptive management. With an adaptive management style, middle managers will focus on facilitating workplace learning, based on the outcome of implemented strategies (van der Voorn et al., 2012). Middle managers are responsible for promoting a learning environment (Parding & Berg-Jansson, 2018), and an adaptive management approach includes both learning processes and conditions for learning (van der Voorn et al., 2012). Increased interdisciplinary collaboration was mentioned as contributing to the co-creation of new knowledge and new competencies. Adaptive management is based on a collaborative effort where managers involve multiple stakeholders with different views, knowledge and competence. Such a management style as a strategy will enable stakeholders to make their present contextual knowledge available for each other (van der Voorn et al., 2015).

In all the focus groups, uncertainty about the need and objective of transformation made it challenging to make sense and to feel comfortable in contributing to transformations. In the findings of Ellström and Ellström (2018, p. 552), learning-oriented leadership and development-oriented managers are characterized as "... closely involved in daily operations, interacting directly with the employees to be able to catch up on everyday worries and jointly find solutions". That description stands in contrast to how most managers work, according to one of the middle managers, who described most managers as working in isolation in their offices with limited knowledge of daily work practices. Poor knowledge about current work practice and the needs and challenges of the employees often fosters production-oriented leadership where learning is based on current knowledge. Difficulty coping with managerial responsibility is also manifested in the way managers prioritize their attention (Ocasio, 2011). In one of the focus groups, participants discussed how managers engaging in learning opportunities in the workplace were a source of motivation and engagement for employees. Establishing workplace participatory practices through a developmental approach to learning-oriented leadership, together with engaging and involving employees, will facilitate workplace learning because the needs of the individuals, the organizations and the managers "are taken into account, and thus contribute to workplace development" (Parding & Berg-Jansson, 2018, p. 116).

Employees in particular shared experiences of managers failing to lead the transformation work, neither motivating them nor illustrating the potential benefits of developing new ways to provide healthcare services. This perception may be connected to a communication breakdown. A communication breakdown often results from managers not providing employees with sufficient information nor involving them in planning and developing organizational change (Bateh et al., 2013).

5.2. Scenario planning and backcasting as tools for sensemaking

The discussions revealed a widespread perception that transformation of everyday work combined with limited involvement of employees creates uncertainty. Uncertainty reduces employees' ability to understand what changes are needed and how to implement them. This may be seen in connection with sensemaking as a means for individuals to find meaning (Weick, 1995). When individuals collectively discuss ideas and knowledge related to uncertainties or discrepancies, their tacit knowledge becomes more explicit and

may enhance their experience of sense (van Reedt Dortland et al., 2014). In one of the groups, all participants agreed upon the importance of understanding potential changes, both upwards and downwards in the organization. Louis (1980) relates sensemaking to the collective understanding achieved through interaction between multiple stakeholders.

The technique of scenario planning can be used as a management strategy, aiming at what Volkery and Ribeiro (2009) describe as making better sense of diverging interests and values, existing or emerging problems and finding common ground to future action. The participants talked about challenges related to people thinking that introducing eHealth and transforming healthcare services is a “quick fix”. They expressed a need for time, time to learn and time to dare to try out new things. Using scenario planning, middle managers can indicate the importance and prioritization of workplace learning. Due to the complexity of healthcare, scenario planning should be based on dialogue and discussions centred on workplace-relevant themes, as in the focus groups in this study. According to van der Voorn et al. (2012), scenario planning is a suitable tool when exploring plausible pathways into the future. Working with scenario planning, involving employees and managers with different views, will make it easier and less uncertain to think the unthinkable and create various and flexible scenarios for a desirable future (Chermack et al., 2006). Involving employees also implies acknowledging their competence. Complementing scenario planning with the tool of backcasting will help to further reduce uncertainties by providing a way to evaluate and further develop the scenarios (Vergragt & Quist, 2011).

In municipal healthcare services, scenario planning could be organized in a similar way as the focus groups in this study, with groups representing a variety of viewpoints, professional backgrounds and roles in the organization. Although involvement of different stakeholders is in line with adaptive management and learning-oriented leadership, they need a common ground. A common ground as a starting point enables collaboration on “purposeful stories about how the contextual environment could unfold over time” (Derbyshire & Wright, 2017, p. 256). In line with this thinking, middle managers could invite top managers and employees to present their experiences related to professions, management of personal resources, contact with patients and relatives, use of eHealth, and collaboration with other stakeholders as a starting point when describing a future end state in a horizon year. They could collaborate on describing how a scenario will unfold from the past and present to the future, pointing out determined elements and resolved uncertainties (Derbyshire & Wright, 2017).

In this study, interviewing middle managers and employees has provided insight into past and present experiences as well as future thoughts and reflections related to digitalization and transformation of healthcare services. The analysis and discussion have presented suggestions for management strategies, styles and tools.

6. Conclusion

The capability to take leadership responsibility is decisive when middle managers facilitate workplace learning in connection with the transformation of healthcare services. It is essential that middle managers ensure communication both upwards and downwards in the organizational hierarchy, involve different stakeholders and prioritize learning opportunities alongside the provision of healthcare services. This is in line with previous research. It is also crucial to acknowledge that these processes consume time and resources. Based on our findings and relevant theory, our aim was to explore strategies for middle managers in their work to facilitate workplace learning when introducing eHealth and new ways of providing healthcare services.

The strategy of middle managers must include organizing the workplace environment as a participatory practice. Adaptive management and learning-oriented leadership are management styles that typically involve different stakeholders and focus on learning as integrated with work practices.

Exploring possible ways to provide and organize future healthcare services implies creative and innovative thinking. The point of departure for digitalization and transformation should be a collective understanding of challenges faced by the organization, indicating the need for middle managers to facilitate communication and knowledge across the different levels in the organizational hierarchy with the aim of bridging gaps in knowledge and flow of information. Knowledge of work-related issues, ways of providing services and perceived problems and challenges among frontline employees have to be communicated upwards to the top management to provide them with more nuanced repertoires of categories for making sense and alternatives of action necessary for decision-making. On the other hand, strategies, commands and guidelines, and especially the reasoning behind them have to be communicated to the frontline employees in a way that helps them make sense. Possessing a collective understanding and experience of sense related to particular situations will be a sound basis for learning and a useful approach to the co-creation of digitalization and transformation of future healthcare services. From their position in between frontline employees and top management, middle managers can facilitate workplace learning when introducing eHealth and other new ways of providing healthcare by using scenario planning and backcasting as tools for sensemaking. Involving different stakeholders from different levels in the organization, with different competencies and experiences, scenarios can be a way of conceptualizing the irreducible and only partly knowable future. For crucial strategic decisions, scenario planning can enhance perceptions of existing or emerging problems, and the technique may be approached in various ways. One way of organizing scenario planning is in line with the focus group methodology, with middle managers leading reflections and discussions based on some open-ended questions and topics relevant to the scenario in question. Due to constant changes and new needs and demands, scenario planning should be part of a process that helps stakeholders to acquire the knowledge and skills necessary to meet both current and future requirements in addition to taking uncertainties into account. Using backcasting as a tool may provide a more nuanced view of the future by enabling analysis of scenarios planned through co-creation. Working backwards from a scenario is a way for those involved to explore possible actions and make hypothetical evaluations, leading to the co-creation of strategies and interventions that enable systematic transformation of future services.

Neither scenario planning nor backcasting provides a finalized vision of the future, but they encompass learning through development of visions and pathways from the past and the present to the future and back again. Digitalization and transformation of

healthcare will affect employees, middle managers and top managers, and thus require involvement and implementation by all stakeholders. Managers at different levels and employees involved will acquire and co-produce knowledge about uncertainties, desirable futures and their contradictions as their common ground and present challenges and incentives to each other and other relevant stakeholders.

6.1. Implications for future research

This paper aimed to explore middle managers' strategies to enable workplace learning when introducing eHealth and other new ways of providing healthcare. Experiences from the focus groups gave rise to the idea of using the concept of scenario planning as a tool to enhance learning and to enable co-creation of a collective understanding of a particular situation. Since the interviews were led by members of the research team and the overall focus in the interviews was defined by the researchers, the use of scenario planning and backcasting as part of a middle manager strategy should be tried out in workplaces and organized by middle managers. Further research should be conducted on healthcare services and workplaces implementing the middle management strategies recommended in this study, such as adaptive management and learning-oriented leadership, and using scenario planning and backcasting as tools to enable sensemaking and collective understanding across organizations.

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Declaration of Competing Interest

The authors report no declarations of interest.

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