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Health and social care professionals' expectations for e-leadership in the digital transformation: a qualitative study

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Abstract

Background Health and social care are undergoing continuous transformation driven by increasing digitalisation. Ongoing changes place significant demands on professionals' daily work and create new expectations for leadership. Previous research on leadership requirements in the context of digitalisation has predominantly focused on the perspectives and experiences of leaders, overlooking how professionals themselves perceive the leadership needed during this transformation. This study examined the needs and expectations of health and social care professionals regarding the e-leadership practices of their line managers as digitalisation reshapes work in the sector.

Methods We employed a qualitative approach and conducted eight focus group interviews with health and social care professionals ($n=33$) using a nominal group technique. Data was collected from three Finnish wellbeing services counties between November 2024 and February 2025. Thematic analysis of professionals' expectations for e-leadership by line managers was initially guided by a data-driven approach, followed by theory-based structuring using the three dimensions of leadership mechanisms: cognition (understanding professionals' premises), affect (interpersonal engagement), and behaviour (leadership actions).

Results Within the theme of *leader's understanding of professionals' premises* (cognition), line managers were expected to facilitate professionals' competence development and to be well-informed about the principles and practices of digital work. *Interpersonal engagement* (affect) encompassed expectations for line managers to be accessible and supportive of wellbeing in digital and remote contexts, to consider equitable remote work practices that reflect professionals' needs, and to support and encourage new digital initiatives. Under the theme of *actions (behaviour)*, line managers were expected to recognise and set boundaries for digital workload, ensure supportive conditions for digital work, provide timely and accessible information and guidelines, and take responsibility for the development and evaluation of digital services.

Conclusions This study identified concrete expectations that can guide leaders in supporting health and social care professionals during digital transformation. Most expectations centred on leaders' actions and interpersonal engagement and the results show that professionals value e-leadership that reflects the practical conditions and challenges of digital work. Line managers are expected to be both knowledgeable and supportive, facilitating environments where digital solutions respond to actual needs and can enhance everyday practices. Leading

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digital transformation should not be considered as a side task within everyday management but an area requiring intentional planning and allocation of resources.

Keywords Digital transformation, E-leadership, Health and social care work, Professionals

Background

The rapid advancement of digitalisation has significantly reshaped the delivery of health and social care. The ongoing digital transformation, driven by goals to enhance efficiency, reduce costs and achieve better patient outcomes [1], continues to shape professionals' work and competency requirements [2]. Integrating new digital technologies into practice, such as patient management platforms, mobile apps or telemedicine, requires ongoing effort and often demands significant adjustments in work, even when new tools appear to support existing routines [3]. Various technologies may help organise professionals' daily tasks by enabling more flexible and independent work, while simultaneously introducing new skills needs and responsibilities such as data management, remote monitoring and asynchronous communication [4]. Ongoing changes in work practices due to digitalisation highlight the need for up-to-date knowledge on leadership that supports professionals and responds to their needs during transformation.

Multiple studies have highlighted professionals' diverse experiences as they adapt to new technologies and changes in work [2, 5, 6]. For example, professionals working in various settings may perceive the impact of digitalisation on their work differently, due to variations in their roles and the technologies they utilise [7, 8]. Professionals' skills and status within the work community may also affect the experiences with new tools [6] and those possessing better digital skills often take greater responsibility for new digital technologies and tasks, which may lead to potential workload imbalances [9].

Continuing technological advancements not only place significant demands on professionals' daily work but also create new requirements for leaders, who must guide and support these transitions effectively. To accelerate digital transformation, leaders need to understand how new solutions influence organisational strategy and daily operations, as well as the interaction between people and technology [10]. In this context, the concept of e-leadership is central. It is defined as a social influence process mediated by advanced information technology to produce a change in attitudes, thinking, behaviour and/or performance with individuals and groups [11]. E-leadership involves adapting to emerging technologies and leading virtually or remotely, which requires building trust with team members in virtual environments [12, 13]. It also includes strategic thinking and visionary leadership to develop and implement digital solutions and provide support for frequent changes [14]. E-leadership is closely linked to the concepts of transformational leadership [12] and digital transformational leadership, which refers to guiding and enabling the use of digital technologies to reshape organisations in ways that support innovation, adaptability and a digital culture [15].

Besides leading transformation at the organisational level, leaders, particularly line managers who are closely involved in professionals' everyday practice, play a vital role in supporting professionals through the often-demanding process of implementing new digital tools and services. This support includes helping staff adapt to new ways of working and ensuring that changes are embedded in everyday practice over time [16]. Leadership is also central to developing required digital health competencies. By fostering open dialogue about how digital solutions should be introduced, while avoiding their forced adoption, leaders can both create a more receptive and sustainable environment for digital transformation and facilitate competence development [17]. Moreover, earlier studies suggest that leaders are expected to provide training and guidance, advocate for the use of technology, and address any negative attitudes that may emerge during the change [18, 19]. To manage all these requirements, leaders themselves need a broad range of digital competencies and must take an active role in developing them [14, 20]. The possible hybrid professional-managerial role of the leader, in which they act both as a professional and as a manager, can either support or hinder the task, depending on whether they prioritise professional duties or technological progress [21].

Research has identified key e-leadership mechanisms, namely cognition, affect and behaviour, that can drive and sustain such change [12, 22]. This framework, previously applied in leadership studies within health care context [23, 24], defines effective e-leadership as involving an understanding of professionals' perspectives during change (cognitions), such as recognising their individual starting points and readiness for transformation. Additionally, leaders should engage interpersonally (affect) by demonstrating emotional intelligence and the ability to motivate professionals in their personal development necessitated by change. Behaviourally, leaders are expected to act in ways that actively support professionals, including taking a proactive role in managing change, leading by example, fostering interpersonal relationships and reinforcing teamwork, all of which may be influenced by the transformation process. Furthermore, leaders should also have certain traits, such as self-confidence in times of transition, which can enable

the effective enactment of these other leadership mechanisms [12, 22].

Although much is already known about the requirements of leadership in the digitalisation of health and social care, existing research has predominantly focused on the perspectives and experiences of leaders. Health and social care professionals are seen as key players in the success of digitalisation initiatives, yet their experiences and needs have often been overlooked [5, 25]. Professionals are not passive recipients of digital solutions but actively engage with and shape their use [26], making it essential to consider their perspectives on the kind of leadership they expect in the transformation. Professionals' diverse experiences with new digital tools and services are likely to influence their leadership preferences, and leaders should be aware of and responsive to these varying needs. Earlier studies have often focused on the leading of implementing specific individual technologies [27, 28] and there is a gap in knowledge about how leaders can address the broader needs and wishes of professionals. Thus, while leadership in digitalisation has been widely studied, the expectations of professionals who are directly affected by these changes remain largely unexplored.

To address the existing knowledge gap, the aim of this study was to examine the expectations of health and social care professionals regarding e-leadership as digitalisation transforms their work. We expected to identify leadership practices that could guide line managers in supporting professionals during digital transformation. We conceptualised the professionals' expectations for line managers within the framework of e-leadership mechanisms [12, 22].

In this study, digitalisation in health and social care refers to (1) *the use of digital services*, such as video consultations, chat services, digital service needs assessments and symptom evaluations, digital service and care pathways, client and patient portals, and electronic appointment booking; (2) *the use of digital tools*, such as decision support systems, remote monitoring tools for clients/patients, digital service and care plans, client and patient information systems, and various AI solutions; and (3) *remote work*. The term 'leader' is used as an overarching concept referring to individuals with leadership responsibilities, with this study focusing specifically on line managers who work closest to professionals.

Methods

Design, setting and participants

We employed a qualitative descriptive design and conducted eight focus group interviews with health and social care professionals ($N = 33$) using the nominal group technique (NGT). The study followed the Consolidated Criteria for Reporting Qualitative Research (COREQ).

Group sizes ranged from three to six professionals. Focus group interviews were considered appropriate for identifying shared and recurring needs and expectations that professionals have for their immediate leaders as digitalisation transforms their work. NGT, which is a structured method for group brainstorming that encourages contributions from all participants, was chosen because it helps to minimise individual dominance and ensures a more balanced input compared to traditional focus group interviews [29]. NGT is characterised as a productive and efficient data collection method that can be used to generate and prioritise solutions to a specific question, producing a hierarchy of their perceived importance to address real-world problems [30]. The method also allows comparisons of priorities between different groups, such as healthcare professionals [31].

The study was conducted in primary health and social care settings across three wellbeing services counties located in different parts of Finland. Finland offers a strong context for examining e-leadership, as it is among the forerunners in digitalisation, which is also reflected in its high level of investment in digital innovations in health and welfare services [32]. Participants were recruited by designated contact persons within each wellbeing services county. Recruitment was carried out via personal invitations, intranet announcements and e-mail communications. Interested professionals registered with the contact person, who then forwarded their contact information to the research team. The researchers subsequently contacted each participant to schedule a suitable time for the group interview. To facilitate open discussion and ensure profession-specific insights, participants were assigned to separate groups according to their professional background: nursing professionals (including allied health professionals), doctors and social care professionals. This approach was applied due to differences in their work roles, which were expected to influence their leadership-related needs and preferences. Additionally, separate groups were thought to prevent potential professional hierarchies from influencing the interviews.

The participants included registered and licenced practical nurses ($n = 12$), social care professionals ($n = 10$), doctors ($n = 6$), physiotherapists ($n = 4$), and a radiographer ($n = 1$). Participants' ages ranged from 28 to 63 years (mean age 42.6 years), and their graduation year varied from 1990 to 2024, with nine participants having graduated within the last five years. They worked in a variety of primary care/service settings, including digital health services, remote and hybrid work environments, home care, outpatient clinics, and various social services.

Data collection

The NGT focus group interview protocol was piloted within the researchers' own organisation with a group of professionals representing various roles in the social and health care sector. The structure and protocol proved to be clear and usable, and only minor adjustments were made, such as clarifying the moderator's instructions. The formal NGT focus groups were conducted via Microsoft Teams between November 2024 and March 2025 with the collaboration of three researchers, one of whom (A-MK) was the moderator and led the discussion. Two additional researchers (EK, LV) were responsible for the technical implementation, including sharing the digital workspace with participants, monitoring chat messages, writing down ideas on the shared display and calculating the scores. Data collection was carried out via Teams due to geographical dispersion of participants and organisational preferences, which enabled easy participation across multiple sites. At the beginning of each focus group, participants completed an electronic form that included both the informed consent and a brief background questionnaire. The questionnaire included items regarding their current work environment, age, year of graduation, and length of professional experience in their current organisation.

After introductions, where researchers and participants presented themselves and the researchers outlined the study's purpose and aim, the NGT focus groups progressed in four stages [31, 33]. First, participants were asked to spend five minutes in silence writing down as many individual ideas (brief, few-word responses) as possible in response to the following question: '*What needs or wishes do you have for your line manager and their actions as digitalisation increases and transforms your work? You may also consider the question from the perspective of your entire profession.*' In the second stage, each participant shared one idea at a time for the group, which was written down on a digital idea board (Padlet) for everyone to see. After all the ideas were read and documented, the third stage, 'clarification', involved a free discussion in which participants expanded on and clarified the meaning of each idea. The purpose of this stage was to enable participants to share their experiences and ensure they understood the meaning of each idea, allowing them to make informed decisions later when ranking their priorities. In the final stage, each participant individually prioritised the ideas by selecting the five most important ones and scoring them on the scale from 1 to 5, with 5 indicating the highest importance. Each participant shared their scores to be counted (the sum of the scores for each idea), resulting in a ranked list of ideas based on their importance [31, 33]. The same protocol (Supplementary file 1) was followed in each focus group. The duration of the interviews varied between 60 and 80 min.

The third clarification stage was voice recorded and transcribed by a professional transcription service, with prior consent obtained from all participants. These transcripts, along with the brief ideas from the Padlet platform and their scores copied into an Excel file, formed the research data.

Data analysis

There are multiple possible approaches to analysing data collected through the NGT, such as focusing solely on the ideas ranked as priorities or analysing the entire dataset [31]. To gain a comprehensive understanding of the themes discussed during the NGT sessions (i.e. professionals' expectations regarding leadership), we chose to analyse the full dataset and combined ideas from the different groups into a single dataset. We were still able to distinguish between the NGT groups and the ideas of different professional groups by using identifiers (e.g. D2.1 = Doctors, group two, idea one).

First, one researcher (A-MK), who was the moderator during the NGT sessions, read through all the interview transcripts to form an overall understanding of the data. The analysis then began by reviewing the ideas (i.e. expectations for e-leadership) produced during the sessions. The researcher aimed to identify initial sub-themes by grouping ideas according to their content. If the meaning of briefly stated ideas was unclear, the researcher checked the related discussion from the transcripts.

After making the preliminary grouping and thematic structure of the ideas, it was then reviewed by a second researcher (EK). Based on joint discussions, the content, titles and number of the sub-themes were revised until a consensus was reached.

Next, in order to structure the identified sub-themes (n = 10) in a meaningful way, we further examined these sub-themes through a theory-driven approach by organising them under three overarching (main) themes derived from the framework of three mechanisms of e-leadership [12, 22]. These were: (1) *Leaders' understanding of professionals' premises* (cognition), meaning awareness of professionals' individual starting points and readiness for change; (2) *Leaders' interpersonal engagement* (affect), including social and emotional intelligence, communication skills, and the ability to motivate and support professionals through change; and (3) *Leaders' actions* (behaviour), referring to concrete change management, leading by example, and monitoring and advancing the implementation of transformation. As the final step of the analysis, all ideas that had been prioritised as most important in each NGT session were highlighted. This allowed us to observe which themes contained the most priority ideas and offered

Table 1 Example of the analysis with inductively formed sub-theme and theory-based main theme

Main theme	Sub-theme	Ideas (expectations for e-leadership)
Leaders' interpersonal engagement (affect)	The leader supports and encourages new initiatives	N8.1 Openness to new experiments and working methods
		N2.8 Leaders' flexibility in testing and implementing new practices
		N2.7 Leaders' own example and encouragement
		NA4.3 New tools effectively and boldly put into use
		NA4.13 Leader creates an encouraging and open-minded atmosphere
		NA5.13 Leader motivates and supports change
		S1.7 Facilitating the adoption of digital tools that support work
		S1.4 Innovation and experimentation in operational processes
		S3.1 Leading by example and positive attitude – encouraging a culture of experimentation sensibly and taking responsibility
		D7.1 Positive attitude towards digital development from leader, listening to professionals

N= nurses, NA= nurses and allied health professionals, S= social care professionals, D= doctors. The first number indicates the number of the focus group, the second number refers to the idea number. Ideas that are highlighted were among those ranked as top priorities by the professional group

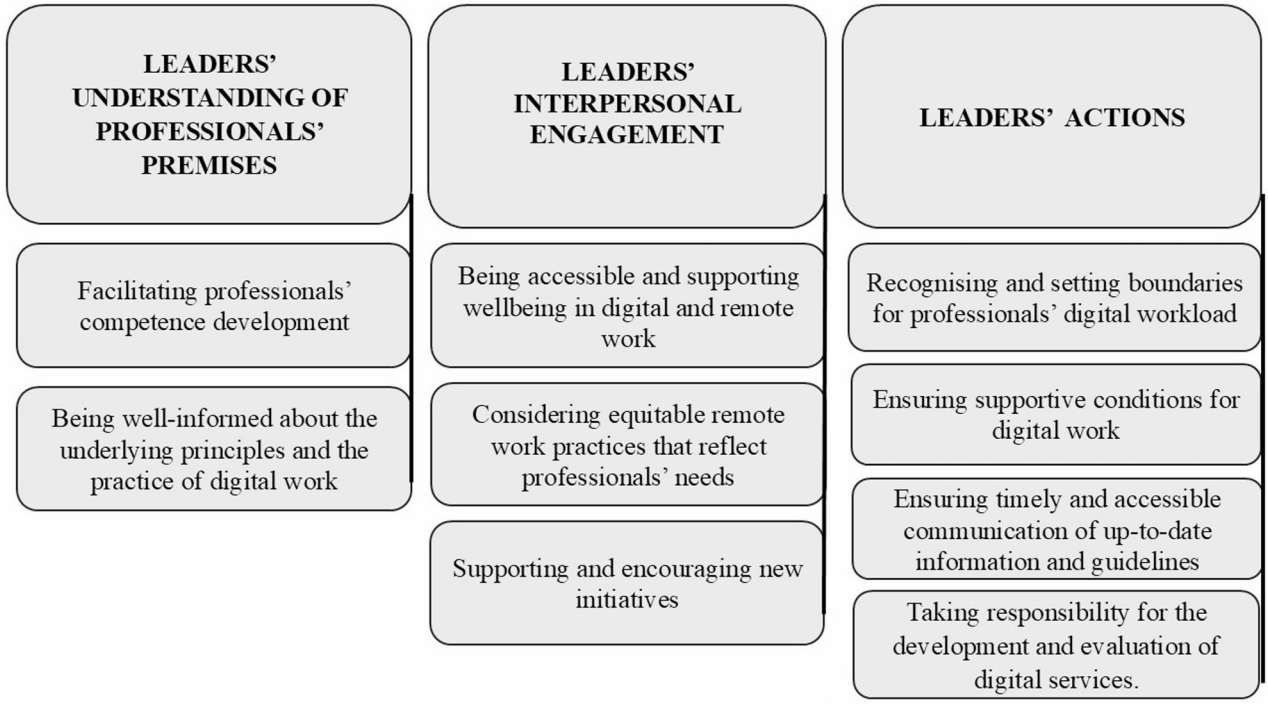

Fig. 1 The expectations of health and social care professionals regarding e-leadership

some insight into how the needs of different professional groups may vary. However, this was not a central focus of the study, and no systematic comparison between professional groups was conducted. Table 1 presents an example of the analysis.

Results

The results regarding the professionals' expectations for e-leadership are presented in Fig. 1 and described in detail below.

Leaders' understanding of professionals' premises

The theme related to *leaders' understanding of professionals' premises* included the following sub-themes representing expectations for the leader: (1) facilitating professionals' competence development, and (2) being well-informed about the underlying principles and the practice of digital work.

Leaders facilitate competence development

Professionals, regardless of their occupational group, highlighted the importance of adequate familiarisation with digital services and tools, as well as the need to ensure opportunities for ongoing skills development. This was seen as a key responsibility of frontline leadership, and the need was particularly emphasised (high ratings were given) by nurses and social care professionals. There was a clear desire for dedicated working time to be

allocated specifically for practising and maintaining digital competencies.

Leaders were expected to understand employees' varying skills levels, and the individual differences in training needs, the time required for practising and preferred learning methods. Additionally, it was considered essential that the management of competence development was not tied to age-related assumptions. For example, participants highlighted the need to avoid presuming that younger employees automatically possess advanced digital skills and therefore require less training or underestimating the willingness or ability of older workers to adopt digital tools in their work.

> *There are young nurses working in digital environments, and IT tends to come more naturally to younger people. But it's important that supervisors have the right attitude towards supporting older staff as well…not a patronising attitude, like "how do you think you'll manage or learn this?" I think that's key. Older nurses may also be interested in different working environments, including hybrid work. (Nurse, group 6)*

One thing seen as a key enabler in this regard was the creation of an open and supportive atmosphere for dialogue, where employees would feel comfortable expressing their current skill levels and pointing out areas where they needed support or training. It should be '*acceptable to be at different stages of competence*' (Social care professional, group 3).

Leaders are well-informed about the underlying principles and the practice of digital work

In addition to supporting the development of professionals' digital competence, leaders were expected to have a comprehensive understanding of the purpose behind the use of digital services and tools: '*It's not about creating digital services just for the sake of having them. They should serve a real purpose and fill a gap that existing services haven't been able to address.*' (Nurse, group 5).

Leaders were expected to update their knowledge base and to be aware of the work professionals carry out on various digital platforms and have a sufficient understanding of the services and tools in use. Such familiarity was seen as beneficial, for example, in enabling the leader to step in and assist during peak periods if their own workload allowed, or at the very least, to be able to offer guidance and support in situations where a service request would not resolve the issue (such as a technical fault on a platform).

Additionally, leaders were expected to be familiar with the digital work in order to recognise that just as digital services are not suitable for all clients, they may not necessarily suit all professionals either, especially without adaptation.

> *Someone who's done clinical work at the grassroots level for decades might not necessarily be good at digital work at all. So it's about assessing suitability, but also offering training (Doctor, group 7)*

Leaders' interpersonal engagement

In the theme of *leaders' interpersonal engagement*, the expectations for the leader were (1) being accessible and supporting wellbeing in digital and remote work, (2) considering equitable remote work practices that reflect professionals' needs, and (3) supporting and encouraging new initiatives.

Leaders are accessible and support wellbeing in digital and remote work

All professional groups emphasised the importance of listening to employees, standing up for them, and supporting their work wellbeing when digital and remote work becomes more common. Leaders were expected to show genuine interest in how staff are feeling and how they are doing, for example through regular one-to-one conversations. It was considered important that leaders are approachable and respond to contact, making it easy for staff to get in touch. It was suggested that when necessary, leaders should pass on professionals' feedback and experiences with digital solutions to higher-level decision-makers.

Same-day availability was rated particularly important. However, professionals also recognised that leaders are not always reachable and suggested that *'If they [the line manager] aren't always available, there could be a colleague who has been designated as someone you can consult more easily.'* (Nurse, group 2).

Professionals expressed the importance of leaders recognising the strain that digital work can cause on employee wellbeing. As digital environments became more dominant and in-person meetings shifted online during the COVID-19 pandemic, opportunities for natural breaks have diminished since there are no longer any transitions between physical locations, which previously offered short, restorative pauses during the workday.

The increased burden associated with digitalisation was also described in terms of growing ethical stress, particularly when technical issues disrupted the workflow and made it harder to carry out core tasks effectively, leading to feelings of not being able to perform as well as one would hope.'*There's digital input coming from every direction and through different tools. It's all so multi-channel, with various programs and systems to learn, and figuring out what to use for what. It's all very demanding. And if something doesn't work, who figures it out, where do you*

go for help, who knows the answer? Sorting things out takes time and isn't always smooth. Then you start to feel that ethical strain, like "I can't get this done properly."' (Social care professional, group 3).

From a wellbeing perspective, professionals also hoped there would be stronger support for a sense of community, so that no one would feel isolated as remote work increases.

> *If you compare it to working entirely on-site, you might go for coffee or lunch with colleagues once or twice a day. Now we eat alone and don't talk to anyone… There are lots of ways this could be developed so that colleagues get to know each other, at least to some extent. It's important for wellbeing at work, and of course it also makes collaboration easier. (Doctor, group 7)*

Leaders consider equitable remote work practices that reflect professionals' needs

Enabling equal and flexible remote work practices was ranked highly in leadership expectations by both nurses and doctors. Nurses hoped that remote work would be made possible, whereas doctors emphasised flexibility in working hours and the ability to balance work and personal life. Doctors were generally satisfied with their remote work opportunities but pointed out inequality compared to other professional groups:

> *I know that, for example, nurses in some places are required to come in person even when there's really no reason for it. They're doing work that is entirely remote, meaning they're not physically in the same space as the patient. And yet, they're required to come in. Sometimes even to a workspace that's noisy. (Doctor, group 6)*

The doctors' description reflected the nurses' perceptions, and among nurses, enabling remote work was seen not only to improve focus but also as a demonstration of trust. Nurses hoped for an end to a culture of surveillance and that leaders could trust that the work gets done just as well, or even more efficiently, at home: '*When working from home, you don't end up chatting with colleagues, which takes time away from work. So, there should be general trust in employees that they are indeed doing their work. Sure, it's good to have some monitoring systems in place, like seeing how many calls or chats someone has handled, just to make sure it's not zero, but it's really about trust.*' (Nurse, group 5).

According to the nurses, one of the main reasons why remote work was not possible was the principle of equality: since not all nurses could work remotely due to differences in job roles, the opportunity was withheld from everyone. Nurses pointed out that since quiet spaces and computers were not always sufficiently available, remote work would help them to concentrate on tasks such as remote monitoring and appointment scheduling without distractions, thereby increasing efficiency.

> *You never really get that peace to work here, so to speak, because of the constant flow of daily tasks around you… and since we're just sitting at the computer, it's easy to pull us into other duties. (Nurse, group 8)*

Leaders support and encourage new initiatives

There was shared and highly ranked wishes across professional groups for leaders to actively support the trial of new working methods and tools, and to create an atmosphere where innovation is both allowed and encouraged. A resistant or passive attitude towards digitalisation was seen to decrease employee motivation and hinder the progress of development ideas:

> *If a manager is strongly against digitalisation, or even just neutral – like, "well, this is just digitalisation", it's disappointing if there's no backing, encouragement or motivation. Because digitalisation is increasing anyway. (Nurse, group 5)*

In digital work leadership, taking responsibility was seen as essential, both in adopting new tools and encouraging others to do the same. Leaders were expected to set a shared direction and show the way forward:

> *It's just like in a war situation. You advance on the front line behind your leader. It's about keeping the shared vision visible. (Social care professional, group 3)*

One suggestion for promoting innovation was that managers should actively encourage professionals to explore new digital services beyond their immediate work tasks: *'If we were told to go and familiarise ourselves with different digital care pathways and such, we'd be better able to guide clients to them, and it could inspire us to develop our own digital services.'* (Nurse, group 2).

Stronger managerial support was seen as key to ensuring that professionals' development ideas are not blocked by bureaucracy, but instead have a real chance to move forward.

Leaders' concrete actions

The theme concerning *leaders' concrete actions* included the following expectations for a leader: (1) recognising and setting boundaries for professionals' digital workload, (2) ensuring supportive conditions for digital work,

(3) ensuring timely and accessible communication of up-to-date information and guidelines, and (4) taking responsibility for the development and evaluation of digital services.

Leaders recognise and sets boundaries for professionals' digital workload

Across all professional groups, there was a shared expectation that leaders should have a realistic understanding of the time demands associated with digital work. The growing demands of digital work were seen as a significant strain on time management, highlighting the need for managers to recognise the situation and actively advocate for increased resourcing:

> *More and more patients are being moved to remote monitoring, and it takes up much more of our working time. But at the same time, we're still expected to manage outpatient clinics and handle daily tasks… The leaders really need to understand that one person can no longer manage this alone. We need more resources, it's as simple as that. (Nurse, group 8)*

It was mentioned that leaders' efforts to respond to the increasing time demands could be hindered at higher management levels of the organisation: *'Higher up, they're simply not willing to give us any more [resources].'* (Nurse, group 8). Additionally, professionals expressed that actions were needed from leaders in defining and determining the sufficient amount of digital or remote work.

> *Some kind of framework would help. Like, if you've done this and that amount, that's already enough, you've done well, and you can take a break. Something concrete like that. Because it's easy to just keep going at full speed without even realising you haven't taken a break. (Nurse, group 5)*

Doctors raised concerns that the digital workload was becoming unmanageable as an increasing number of patients, including those with conditions unsuitable for remote care, might be directed to remote consultations without adequate triage or time allocation. A desire was expressed for leaders to actively participate in creating shared guidelines and criteria for conditions or patient groups suitable for remote consultations. By understanding the possible limitations and setting boundaries and advocating for clearer structures, leaders could ensure that digital care remains appropriate and sustainable. Also in this way, doctors would not have to make such decisions about suitability alone, reducing the risk of conflicts between different care providers. Other professionals also raised the need for leaders' guidance in assessing when digital services are appropriate versus when an in-person visit is needed, as well as support for allocating time to assist clients in using digital tools and platforms.

Leaders ensure supportive conditions for digital work

Especially among nurses and doctors, a recurring priority was that leaders must ensure access to functional tools, software and working conditions that support digital work. Easy access to technical support was also desired. The usability of digital tools was seen not only as a factor increasing workflow efficiency and time-savings but also as an element in making the work attractive:

> *It can be hard to attract young people to the job if the tools are poor, because they're probably even more used to things working smoothly. Middle-aged people think all computers are junk. But if you've used good equipment and software, you won't want to go back to junk. (Doctor, group 6)*

For doctors, supportive conditions extended beyond tools to include organisational structures and practices that enable remote consultations. They talked about the need to establish clear guidelines on which patient groups, cases or issues must be handled face-to-face, as sometimes they felt pressured when remote consultations conflicted with national clinical guidelines:

> *Especially when reading Terveysportti [the national clinical guideline portal], it often recommends performing a clinical examination. So it can feel uncomfortable to go against those recommendations. But it's also clear that we don't have the resources to see every case in person, and that's exactly why digital services exist. Still, it would help to have clear guidelines on what must be handled in person and what can be done remotely. (Doctor, group 7)*

Leaders ensure timely and accessible communication of up-to-date information and guidelines

Nurses in particular expressed numerous expectations regarding digital communication and the dissemination of information about digital changes. They emphasised the importance of timely, well-justified and relevant communication targeted at professionals:

> *It's about feeling involved in the planning, but not too early and not too late, when decisions have already been made. The communication should explain the rationale behind digitalisation. And I'd add that it's important to understand how these changes affect my work… if they affect it at all. (Nurse, group 4)*

Due to the wide range of digital communication channels in use, such as email, chat platforms, and intranet

systems, professionals expressed a preference for their leaders to eliminate unnecessary channels or, at a minimum, establish clear guidelines about which channel should be used for essential updates. Such rules would reduce the pressure to monitor multiple platforms and alleviate stress about important missing information. Furthermore, participants suggested categorising messages by importance, so that critical updates would stand out and staff could more easily access current digital work guidelines: '*Right now, we get everything at the same level – whether I'm bringing baguettes or spread to the team meeting, or if there's a new guideline that must be implemented immediately. So, classifying the information. At the moment, it all comes through the all-in-one feed.*' (Social care professional, group 1).

Leaders take responsibility for the development and evaluation of digital services

Professionals emphasised that leaders play a key role in overseeing the development and evaluation of digital services. A structured, long-term and goal-oriented approach was seen as essential, with active involvement from both professionals and IT experts. It was hoped that leaders can provide a clear overall picture when new services are introduced, give opportunities for feedback, and enable proactive planning for potential difficulties. Leadership was also expected to be based on data-driven decision-making, where collected data is analysed to support service development and necessary changes could be made when something does not work as intended. Only well-functioning, ready-to-use digital solutions should be implemented, and unfinished technologies should only be piloted with clear plans and sufficient resources.

Expectations related to consistency, planning and leadership accountability in development were especially prominent among social care professionals, who ranked these aspects as high priorities. There was a strong call for leaders to take ownership of digital transformation as part of their core responsibility in service leadership, not something delegated to technical staff.

> *It often gets confused. People assume that ICT people will bring in some solution that fundamentally changes our services. That will never work. It is the leaders of social services who lead social services, whether they're digital or not…Somehow, we don't think of digitalisation as part of the responsibility of leading normal social services. (Social care professional, group 3)*

Discussion

The aim of this study was to explore the leadership needs of health and social care professionals as their work undergoes changes due to digital transformation. This responds to a previously identified research gap by bringing forward the perspectives of professionals, whose voices have often been under-represented in e-leadership–related research. While previous studies have also discussed leadership needs in digital transformation [15, 34], our study adds new perspective by detailing the expectations of professionals and how these are experienced and prioritised in their everyday work. As the study was conducted in Finland, the results reflect the characteristics of the Finnish health and social care system, where services are structurally integrated under joint management. Leaders are often responsible for multidisciplinary teams, which may shape the leadership expectations of professionals and increase the complexity of line management. Moreover, based on the differences in professionals' roles, level of autonomy, or the extent of digitalisation across countries, it would be valuable to conduct similar studies elsewhere to better understand how these different factors may influence e-leadership needs.

We were able to highlight concrete expectations that were linked to professionals' everyday work realities, which we structured using e-leadership mechanisms [12, 22] related to leaders' *understanding professionals' premises* (cognition), *interpersonal engagement* (affect) and *concrete actions* (behaviour). Most expectations centred on leaders' actions, particularly in managing professionals' digital workload, creating supportive conditions for digital work, sharing information effectively, and taking responsibility for the development of digital services. Expectations related to interpersonal engagement included leaders being approachable and supportive of staff wellbeing, considering equality in remote work practices and encouraging innovation. The least expectations were expressed for leaders' *understanding of professionals' premises*, including offering opportunities for professionals to develop digital competencies, and that leaders themselves stay up to date with the foundations and practices of digital work.

Professionals' strong emphasis on leadership support for digital competence development and adequate time for familiarisation highlights the persistent challenge of time-related barriers in the successful implementation of digital technologies in health and social care [35–37]. Earlier studies have shown that insufficient support for digital competence development can contribute to frustration and disengagement, particularly if digital tools are implemented without adequate time or training [14, 37]. The challenge for leadership, then, lies in recognising what constitutes adequate time for each individual. Our results also suggest that leaders should be sensitive to professionals' diverse competence levels and learning needs, regardless of age or professional background. Prior studies have warned against age-based

assumptions, because such biases in leadership may hinder equitable competence development and contribute to structural ageism that affect both staff retention and the quality of care [38]. Importantly, our results highlight the need for leaders not only to recognise but also allow the diversity of learning needs within their teams. Based on our findings, creating a psychologically safe environment for dialogue about the possible skills gaps, for example, could enable more successful digital competence building at all stages of a professional's career.

One of the highly ranked expectations shared across all professional groups was that leaders actively recognise and manage professionals' digital workload, which aligns with earlier research suggesting that leaders may not fully acknowledge the increased burden associated with digital tasks [2]. According to our findings, to effectively acknowledge this workload, leaders must also address other key areas of e-leadership and meet related expectations, such as developing a solid understanding of the digital aspects of their teams' work, including the platforms, services and tools used daily (*leaders' understanding of professionals' premises*). Moreover, taking responsibility for the development of digital services and the monitoring of their use within their operational environments (*concrete actions*) is essential. The gap between leaders' perceptions and professionals' experiences can lead to underestimating the cumulative strain from various digital systems. Thus, regular feedback mechanisms, such as structured discussions or digital workload assessments, should be implemented and integrated into resource planning, ensuring digital tasks are not simply added on top of existing responsibilities without adjustment. These feedback mechanisms should also consider professionals' wellbeing, such as the effects of digital work on mental strain, to help identify risks and support more balanced workload management [39]. This would contribute to addressing professionals' frequently expressed desire for greater attention on wellbeing in digital work (*leaders' interpersonal engagement*), even though it was not among the most highly prioritised needs.

Professionals in this study expected their leaders not only to permit but actively promote fair and flexible remote work practices. This was considered part of interpersonal engagement, as it reflected leaders' abilities to recognise fairness-related concerns and respond in a way that acknowledges individual needs. As noted by Kossek and Lautsch (2018), experiences and outcomes of work-life flexibility are often occupation-based [40], which was also apparent in our study. While doctors reported satisfaction with their remote work arrangements, they also recognised disparities in how other professionals' opportunities can be restricted without clear justification. The reasoning reflected an outdated principle of fairness: 'If not all can, none should'. At the same time, it was perceived as a question of trust in employees' ability to work effectively remotely. To promote equitable flexibility, leaders should recognise that fairness does not have to mean treating everyone the same but ensuring that each professional has the conditions they need to perform effectively. This requires tailoring work arrangements to the specific demands of roles and individuals, rather than having the same approach to all. However, it should be noted that changing current practices is not only the responsibility of line managers but it also depends on higher-level leadership. There is a need for a critical examination of organisational policies and the ideas on which they are based.

Finally, all professional groups consistently ranked managerial support for innovation as a top priority, highlighting the desire for leaders who encourage and make room for experimentation in everyday work. This perspective is in line with previously well-established knowledge about the importance of leaders' attitudes in promoting or hindering digital transformation [12, 23]. Evidence suggests that the effective adoption of digital health technologies by professionals is closely linked to managerial belief in their benefits [41]. Therefore, it is important that line managers maintain a positive attitude towards digitalisation. Indeed, previous studies have shown that healthcare leaders may hold more positive views on digitalisation because they actively lead digital initiatives and strive to demonstrate visible commitment to new implementations [42]. The expectation that leaders should set the direction, lead by example and foster a supportive environment for innovation is therefore not new. However, it is important to consider new and practical ways to motivate and support innovation in everyday work. While this topic was not widely discussed by the professionals in this study, one suggestion was to encourage staff to explore digital services beyond their immediate tasks. This could broaden their understanding of available tools and inspire new ideas for their own work and service development.

Limitations

The study was conducted in three Finnish wellbeing services counties, which may limit the transferability of the findings to other regions or national contexts with different organisational cultures or levels of digital maturity. Our findings may be particularly relevant for countries with a similar level of digitalisation in health and social care, while also offering points of comparison for systems where digital transformation is less advanced.

It is possible that individuals with a stronger interest or involvement in digitalisation or leadership were more likely to participate. This self-selection may have influenced the results, as the perceived needs and priorities might have differed with a different participant

composition. However, the fact that the same professional groups from different organisations took part and the findings were largely consistent across these groups strengthens the credibility of the results. While the NGT was shown to be effective in enabling structured and diverse data collection and prioritisation, qualitative interviews with more open-ended questions could have allowed for deeper and more versatile discussions of the topic. Additionally, because the group interviews had to be conducted via video conferencing software due to geographical distances, this may have influenced the natural flow and depth of the conversations. Finally, many members of the research group had backgrounds in the social and health care sector, which may have influenced the interpretation of the findings. However, we actively sought to reflect on and minimise any preconceptions throughout the research process, and this background can also be seen as a strength, as it provided contextual understanding and supported the relevance of the practical implications.

Conclusions

This study provides up-to-date knowledge on how health and social care professionals expect their leaders to take clear responsibility for how digitalisation is implemented in everyday work. Many of the needs and wishes for leadership were shared among professionals, and this study also demonstrates that leading digital transformation requires managing multiple aspects simultaneously. For example, a leader's strong understanding of the professionals' digital work enables them to recognise its impact on workload and the need for resource allocation. Fostering an open and encouraging atmosphere can support both the development of individual competencies and the innovation of new digital solutions that can enhance work practices. Professionals acknowledged that digitalisation is seen as a solution for many challenges in health and social care services. However, they also emphasised that transformation does not happen automatically alongside other work, and leaders also need competence development and dedicated time allocated specifically for managing digital work and service development. Furthermore, our results highlight the importance of leaders systematically assessing and addressing health and social care professionals' perceptions of digital work and its associated transformations.

The implications of our findings are threefold. First, leadership training should include specific components on managing digital transformation in practice, especially regarding digital workload, equitable remote work and competence development. Line managers would benefit from practical guidelines and approaches that could help them lead these changes in ways that are responsive to professionals' needs and expectations. Second, organisations should ensure that leaders are given sufficient time and resources to engage in this transformation work as part of their core duties. Third, higher-level decision-makers should critically assess current organisational structures and norms, especially those that prevent flexible working models or innovation in digital service delivery. Future research could build on this study by examining leadership expectations across different national contexts or by longitudinally evaluating how leadership practices evolve in response to accelerating digitalisation.

Supplementary Information

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Supplementary Material 1

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Author contributions

A-MK, EK, LV and TH jointly developed the research question and planned the study. A-MK was responsible for the implementation of the study, methodology, collecting the data, conducting the initial analysis, writing the first draft of the manuscript and making subsequent revisions. EK coordinated the recruitment of participants, collected data, participated in the analysis and edited the manuscript. LV collected data and edited the manuscript. PH assisted the recruitment of participants and edited the manuscript. SE assisted in the recruitment of participants and edited the manuscript. TH secured funding and edited the manuscript. All authors read and approved the final manuscript.

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Data availability

The datasets generated and analysed during the current study are not publicly available due to the lack of participant consent for data sharing.

Declarations

Ethics approval and consent to participate

The study conforms to the principles set out in the Declaration of Helsinki. The Research Ethics Committee of the Finnish Institute for Health and Welfare provided approval for the study (THL/1380/6.02.01/2025). Research permits were obtained from each organisation. Each participant gave informed consent prior to data collection.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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