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ORIGINAL ARTICLE

Collecting pieces for the ‘puzzle’: Nurses’ intraprofessional collaboration in the hospital-to-home transition of older patients

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Abstract

Background and aim: Communication is a key factor in intraprofessional collaboration between hospital nurses and homecare nurses in hospital-to-home transitions of older patients with complex care needs. Gaining knowledge of the nature of cross-sectoral communication is crucial for understanding how nurses collaborate to ensure a seamless patient trajectory. This study explores how cross-sectoral electronic health records communication influences collaboration between hospital nurses and homecare nurses when discharging older patients with complex care needs.

Method: The study is based on qualitative group interviews with six hospital nurses and 14 homecare nurses working at different hospitals and municipalities across Denmark. Data were analysed using reflexive thematic analysis, as described by Braun and Clark.

Findings: The themes *Collecting pieces for the ‘puzzle’: Losing the holistic picture of the patient*; *Working blindfolded: limited provision of and access to critical information*; and *Bypassing the ‘invisible wall’: dialogue supports cohesion* illustrate the impact of organisational structures within electronic health records have on hospital nurses’ and homecare nurses’ intraprofessional collaboration across sectors. Challenges with predefined and word-limited elements in digital communication, and inadequate and limited access to significant medical information were identified. To compensate for the inadequacy of the electronic health records, direct contact and dialogue were emphasised as ways of fostering successful collaboration and overcoming the barriers created by electronic health records.

Conclusion: Despite hospital nurses’ and homecare nurses’ desire to conduct holistic patient assessments, their ability to collaborate was hindered by failures in electronic health record communication resulting from restrictive organisational structures

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across sectors. Thus, it became necessary for hospital nurses and homecare nurses to bypass the electronic health record system and engage in dialogue to provide holistic care when discharging older patients with complex care needs. However, by hospital nurses and homecare nurses compensating for counter-productive organisational structures, problems brought about by the electronic health record system paradoxically remain invisible.

KEYWORDS

cross-sectoral collaboration, cross-sectoral communication, cross-sectoral transition, discharge of older patients, homecare nursing, intraprofessional collaboration of nurses, person-centred care, qualitative research

BACKGROUND

Older patients with multimorbidity are discharged from hospitals to homecare at an accelerated rate with increasingly complex care needs [1, 2]. Given that older patients are not fully recovered from treatment upon hospital discharge requirements, increase for homecare nurses (HCNs) to plan and perform care tasks across various medical specialities such as cardiology. This increases demands on cross-sectoral collaboration between HNs and HCNs to maintain holistic care for older patients. Several studies have highlighted the importance of the role of nurses in both inter- and intraprofessional collaboration in transitional care [3–6]. Nurses are highly important in this process as they are largely responsible for coordinating and providing care to ensure seamless patient trajectories [1, 7, 8]. Thus, from a caring science perspective, nurses' collaboration and information sharing about the individual patient's life-world is vital to support holistic and a person-centred care [9, 10].

Collaboration is defined in the Oxford English Dictionary as “United labour, co-operation” [11]. Collaborating is further described as a dynamic and complex social process [5], implying individuals interacting and working together in a non-hierarchical way with the necessary competencies and dedication to achieve shared goals [12]. Similarly, collaboration in healthcare is characterised as the collaborative efforts of healthcare personnel who communicate and work together in a supportive and respectful environment [13]. Collaboration is even acknowledged as a hallmark of success in nursing practice [14], underscoring its perceived inherent significance within the profession. Thus, teamwork, respectful and non-hierarchical communication, and shared goals, are recognised as crucial elements for successful intraprofessional collaboration when discharging older people with multimorbidity.

Research on intraprofessional collaboration between nurses across sectors is, however, relatively limited.

Existing research has identified challenges associated with intraprofessional collaboration between HNs and HCNs [2, 15, 16]. On the one hand, HNs state that they work under pressure to deliver fast-paced patient trajectories, with limited access to information about the patients' habitual condition and limited knowledge of resources and competencies in the municipalities [15]. On the other hand, HCNs report that they experience being pushed beyond the limits of their competencies due to unclear work environment and responsibilities compromised by limited access to information. This includes inadequate information about specialised tasks and information from medical records when older patients are discharged from hospital to homecare [2, 16]. The limited access to information reported by HCNs has been attributed to the organisational structures of the diverse electronic health records (EHRs) used within the municipalities and regions in Denmark and the intricate infrastructures for information exchange between HNs and HCNs [2, 16]. Both aspects can potentially hinder collaboration between HNs and HCNs.

EHRs are the main communication tools used for information exchange between the HCNs and HNs during patient hospitalisation and discharge processes in Denmark. It has been described that HNs and HCNs recognise the EHRs as facilitating communication and collaboration when discharging patients from hospital to homecare [17]. However, a recent study identified that nurses from emergency units considered it problematic to provide a holistic description of older patients with multimorbidity in the EHR systems [16]. This indicates that communication and collaboration between HNs and HCNs in the transition of older patients with multimorbidity are influenced by organisational structures related to the EHR that may influence care negatively. Further, it has been argued that nurses are led to maintain a sector-distinct view when collaborating through technologies and techniques that draw on new public management (NPM) forms of caring for the patient [18]. Petersen et al. [15] even question if cross-sectoral collaboration between nurses should be understood as interprofessional collaboration rather than

intraprofessional, as the nurses in their study described themselves as working in two different worlds with different organisational systems and perspectives on nursing.

All of the above can contribute to a lack of agreement on shared goals for the patient's outcomes [6] and create feelings of uncertainty, distrust and resentment, as well as a power imbalance in collaborations [1, 2, 15, 19]. This challenges nurses' ability to achieve the key elements of teamwork, respectful and non-hierarchical communication, and smooth collaboration across sectors. Furthermore, care outcomes can be affected as the risk of the patient being readmitted is increased [7, 18, 19]. In fact, older people discharged from hospital to homecare can experience readmissions as inevitable due to inadequate professional competencies [20], suggesting the need for increased political focus on improving collaboration between hospitals and municipalities [21].

In sum, effective cross-sectoral communication is crucial for successful collaboration between HNs and HCNs when discharging older patients with complex care needs. Hence, gaining knowledge of the dynamics of cross-sectoral EHR communication is essential for understanding how nurses can collaborate to provide care that is not only technically adept but also profoundly human-centred and sensitive to the needs of the individual patient [9, 10].

Thus, this paper aims to explore how cross-sectoral EHR communication influences collaboration between HNs and HCNs discharging older patients with complex care needs.

METHODS

This study employed a qualitative study design based on the experiential approach as described by Braun and Clarke [22, 23]. Accordingly, the focus was on how HN and HCN made sense of their realities in cross-sectoral communication. Data were collected using group interviews digitally on Zoom with Danish HNs and HCNs from the beginning of October 2022 to the end of February 2023.

Study context

Data collection took place in Denmark where the health-care system is financed by taxes and is therefore mainly free of charge for Danish citizens. Homecare services are provided by the countries' 98 municipalities which belong to five different regions. Homecare services in Denmark are mainly provided to citizens living with chronic physical and psychological conditions, and those in need of long- or short-term care following hospital admissions. Diverse

EHRs across regions and municipalities in Denmark are used for improving communication and information exchange in admission and discharge processes. For nurses, the EHRs aim to support collaboration in strategising care for older patients with complex care needs by enabling the exchange of patient documentation concerning their condition and care before or during hospitalisation.

Participants and data collection

To recruit participants, purposive sampling using a snowball approach [24] was utilised. An invitation to participate in the study was shared on social media webpages such as LinkedIn and Facebook. In addition, invitations were shared with students in the Master's program in Nursing at Aarhus University; the students were encouraged to share the invitation with colleagues and were also invited to participate themselves.

A semi-structured interview guide was developed addressing the research aim through questions relating to the main topics of *communication, collaboration and organisation*. The interview guide included open-ended questions related to HNs' and HCNs' general experience of discharging older patients with complex care needs from hospital to homecare. Examples of the questions are shown in Table 1. All interviews were audio-recorded and transcribed verbatim by the first author. No video recordings were made during the group interviews.

Six HNs from four different hospitals across Denmark and 14 HCNs from 10 municipalities (= 20 participants in total) were included in this study. Characteristics of the participants are presented in Table 2. A total of nine group interviews were conducted, five of which included both HNs and HCNs. We strove to include two to three participants in each group. The first author mainly led the interviews. Two researchers participated when the group interviews had more than two participants.

Following Braun and Clark's [25], an interpretive judgement of the data relates to the aim of the study rather than to a predetermined number of interviews. Thus, the data were continuously interpreted and evaluated to judge the information power, that is, the richness of the data [26].

Data analysis

The six phases of thematic analysis described by Braun and Clark [22] involve searching across the data corpus to identify repeated patterns of meaning. First, by rereading the data, codes were identified and organised into meaningful units later sorted into potential themes. The analysis process was characterised by moving back and forth between

Communication	<i>How do you experience communication between your nurses across sectors when an older patient is discharged for homecare? How do you experience the sharing of information in this transition?</i>
Collaboration	<i>How do you experience collaboration between your nurses across sectors when older patients are discharged from hospital to homecare? Do you feel you can support each other's work? In which way? What do you emphasise? Please provide examples</i>
Organisation	<i>What is particularly important for you HNs in the process of planning and discharging older patients? And for you HCNs? Can you think of situations where you as HCNs experienced a lack of specialisation or competencies? If so, please give examples of such situations. What did you do in these situations?</i>

TABLE 1 Examples of questions in the interview guide.

TABLE 2 Characteristics of participants.

Characteristics of participants	HCNs	HNs	n
Primary employment experience	14	6	20
Female	14	5	19
Male	0	1	1
Work experience in years (as RN)	5–23 (mean 12.4)	3–21 (mean 11)	
Have completed/are currently completing higher education within nursing (e.g. MSc in nursing or specialty education)	8	2	10

the data, codes and potential themes. A thematic map of the data was developed, defined and redefined during the writing process where three themes were identified. To critically refine and finalise the themes, the authors continuously discussed how the codes and themes that emerged were associated with and differed from each other.

The analytical approach was primarily inductive, aiming to uncover the broader meaning of the data while critically reflecting on the possible influence of the authors' perspectives rather than denying them [22, 23].

Ethical considerations

The study was performed in accordance with the principles of the Helsinki Declaration [27]. The study was approved by the Danish Data Protection Agency and has also undergone ethical scrutiny by an EU advisory board.

The participants gave written consent to their participation after having received written and oral information about the purpose of the study, confidentiality, anonymity

and their right to withdraw from participating at any moment without any consequences [27]. To further safeguard the privacy and confidentiality of the participants, potentially sensitive information that could lead to their identification was excluded from the reported findings. All participants verbally consented to the privacy of discussion before the group interviews.

FINDINGS

Three themes were identified in the analysis: *Collecting pieces for the 'puzzle': losing the holistic picture of the patient*; *Working blindfolded: limited provision of and access to critical information*; and *Bypassing the 'invisible wall': dialogue supports cohesion*. These themes unveil how communication between HNs and HCNs when discharging older patients with complex care needs is significantly shaped by the organisational structures of EHRs.

Collecting pieces for the 'puzzle': Losing the holistic picture of the patient

Inadequacy in written communication in the EHRs was described as one of the main challenges in the nurses' cross-sectoral collaboration. Particularly, the structure of EHRs did not support their collaboration concerning older patients with multiple chronic conditions and complex care needs:

I believe that most cases can usually be solved by EHR communication, especially cases involving patients who are younger and cognitively intact. It's just... a lot of the patients we have are older and have multiple diseases and complex care needs.

(HCN)

HNs' and HCNs' cross-sectoral communication was mostly determined by EHRs' predefined and standardised elements related to patients' care needs. Due to the predefined nature of the elements, the HNs struggled to communicate adequately to HCNs, within a word limitation, a holistic picture of patients' often complex and multifaceted situations and connections to several hospital wards. Hence, despite HNs' competencies in performing and communicating a holistic assessment of the patient, they were constrained to communicate information in a fragmented and standardised manner. This could impede rather than facilitate the communication of a holistic overview regarding older patients with complex care needs:

Most of us are trained to make an assessment and synthesise the specific needs of a patient in their illness trajectory. But such information can be passed on only in freely written text, so sometimes it feels like you're trying to put together a puzzle where you catch a bit here and a bit there from standardised terms. Finally, when you have generated this picture in agreement with the patient and the relatives, you have to smash it with a hammer and put it back into all these little boxes that you try to pass on to others, knowing that they will never get the same picture.

(HN)

Consequently, HCNs had to spend additional time to assemble these fragments of information as a 'puzzle' to create a holistic overview of the patient's needs which rarely aligned with the assessment of the HNs:

When you see what is written in the discharge report, then you might have thought 'it's not that bad' but when you go to visit there are ten other things as well – perhaps the wife has dementia or there are no relatives or...

(HCN)

Communication between HNs and HCNs was further complicated by the use of diverse EHRs in hospitals and municipalities as this could lead to an automated conversion of data, causing the information the HNs believed they were conveying to become hardly recognisable. For example, the information HNs communicated could differ considerably from what they originally thought they were communicating to the HCNs because automatically generated data such as blood pressure measurements from admission could be included without the HNs' knowledge. Both HCNs and HNs described how this conversion often made the information incoherent and sometimes

even contradictory. For HCNs, this meant that they often received inadequate information that often highly underestimated the complexity of the older patient's condition.

Working blindfolded: Limited provision of and access to critical information

Sharing information about how to perform specialised care tasks was another important aspect of collaboration between HNs and HCNs across sectors. The extent to which information was shared in communication from HNs to HCNs was, however, highly influenced by the individual HN's taken-for-granted knowledge about care tasks within a specific medical speciality. Due to HNs having access to medical records and specialist knowledge within their medical speciality, they did not always communicate relevant guidelines to HCNs.

The challenge related to taken-for-granted knowledge in the nurses' communication was highlighted in HCNs' lack of access to medical records. This posed an additional challenge in the collaboration. The limited access of HCNs to medical records and important information, such as blood test results and hospital decisions, hindered HCNs' ability to assess the patient's condition adequately upon discharge. HCNs emphasised their crucial role in coordinating the trajectory of older patients. However, only general practitioners had access to medical records containing future appointments and follow-up plans for the patients.

The information we really need when people return home is written only in the medical record that is sent to the general practitioner. It might be the general practitioner who is registered as being in charge of the trajectory of the patient, but actually it is very often home-care nurses who are responsible [...].

(HCN)

This meant that HCNs often had to work blindfolded due to inadequate sharing of critical information, which limited their ability to provide care to older patients with complex medical needs across diverse specialties and with little opportunity to fully assess the patient's needs after discharge.

The thing about working so much in ignorance. [...] it would be great to be able to see a blood test once in a while because we know they are there. Because we are the ones who have to observe the patients, right? So, you

go there and observe the patient's cognitive function, skin and tissue and musculoskeletal system and you suspect something and send it to the general practitioner, but it would be nice if we had something to compare it with ourselves. And they (the patients) are just complex.

(HCN)

When HNs took HCNs' specialist knowledge for granted and underestimated their information, resources and potential training requirements it not only posed challenges for HCNs in delivering safe and specialised care. It also caused patient concern if HCNs' execution of a specialised care task diverged from the HNs' as HCNs were left unprepared to perform these care tasks in the homecare setting:

[...] for patients it feels unsafe when the homecare nurse is doing something differently from how it was done at the hospital. That's why it's important to be aware that we may be dealing with dialysis patients, wound care, and medicine administration in all sorts of different ways.

(HCN)

Without information about appointments, blood tests, etc., the HCNs were potentially left without any chance of properly observing the older patient or coordinating and planning a coherent trajectory. This emerged as a clear barrier to promotion of both coordination and holistic care.

The HCNs trusted that the HNs strove to provide adequate and accurate information in the discharge process, but HNs were not always aware of HCNs' information needs. Both HNs and HCNs emphasised that greater insight into each other's working conditions, resources and information needs would enhance their communication and strengthen their collaboration:

[...] this thing about getting an explanation of what kind of requirements are placed on HCNs in terms of knowledge and treatment. Because if you don't know about it, it's obvious that it's not the information you communicate either.

(HCN)

Thus, sharing relevant guidelines and providing necessary training made HCNs feel competent to provide specialised care to older patients which in turn could strengthen their collaboration.

Bypassing the 'invisible wall': Dialogue supports cohesion

Communicating in the EHRs across sectors was considered one-way communication. This meant that the communication in the EHRs did not incite dialogue but rather distanced HNs and HCNs from each other. In other words, this one-way communication seemed to constitute an 'invisible wall' in the cross-sectoral collaboration. As expressed by this HCN:

It is incredibly difficult to be a good collaboration partner if you never ever talk to each other.

(HCN)

To bypass this 'invisible wall' and compensate for the inadequacy of the EHRs when discharging older patients with complex care needs, HNs and HCNs emphasised the significance of cross-sectoral dialogues. For example, collaboration was enhanced through dialogues where HCNs could ask probing questions and discuss the resources available in homecare settings so that both parties could agree on a realistic care plan for the patient:

[...] when we talk on the phone, you have a completely different opportunity to say 'You know this woman...' or 'You've dealt with...'. And you can come up with those 'You should also know that...' or 'Could I just ask you about...?' comments and questions – and you can't do that in a computer system.

Furthermore, HNs and HCNs emphasised how direct contact established a collegial relationship between them and how this relationship enhanced collaboration between the sectors in the discharge process of older patients with complex needs. Accordingly, both HNs and HCNs were willing to collaborate, and they described a positive attitude and collegial tone when direct contact was initiated. Thus, direct contact helped to establish a broader understanding of the work conditions in each sector, promoting joint decision-making between the two parties:

I just think that talking to your colleagues at the hospital provides a different understanding... It does something to the relationship. It's talking to a real person and not just a computer, if you can put it that way.

(HCN)

Despite positive experiences, HCNs found establishing contact with the colleague who knew the patient at the

hospital a time-consuming process due to lack of continuity between the staff and lack of staff availability in the discharging wards. Similarly, HNs described that because they already spent a great deal of time communicating in the EHR through care plans and discharge reports, they could not always prioritise the additional time for direct contact. However, online meetings could accommodate the challenges of direct contact being time-consuming as these were always planned prior to the discharge and thus ensured the availability of the relevant staff member.

In cases where collaboration between HNs and HCNs failed when discharging older patients with complex needs, the potential ramifications for these patients could be grave, resulting in recurrent readmissions, occasionally even within the same day. Consequently, the older patients' dignity was at stake often due to insufficient communication and collaboration between sectors.

[...] When the patient comes in twice in a day, you think "Come on..." and when they come in for the third time, it feels deeply undignified. It's clear that there's a lack of back-and-forth dialogue between sectors... It's a question of who takes responsibility, right?

(HN)

Thus, dialogue was experienced as indispensable for ensuring a successful collaboration between HNs and HCNs. Overall, the findings demonstrate a context that impedes rather than supports nurses to manage their intraprofessional collaboration across sectors; furthermore, the impediments are fundamental in their nature, making a holistic approach to older patients with complex care needs very difficult. HNs and HCNs strived to overcome these impediments, but naturally this was not always successful, and they were placed trying to make collaboration work within a system that was not functional in this regard.

DISCUSSION

Our findings illustrated several challenges associated with the utilisation of EHRs as the primary means of communication in intraprofessional collaboration between HNs and HCNs. HNs faced limitations in the extent of written information, and they were able to communicate with HCNs. This was primarily due to the predefined, standardised and word-limited elements within EHRs, leading to inadequate and inconsistent information. Furthermore, the utilisation of diverse EHR systems across sectors resulted in the automatic generation and conversion of data without HNs' knowledge, making the information

communicated to HCNs inconsistent and sometimes even contradictory. Also, our findings underscored the impact of problematic organisational structures, which dictated the extent of medical record accessibility for HCNs. This lack of access to potentially important information about the patient further restricted the nurses' cross-sectoral collaboration. Our findings showed how these challenges forced HCNs to collect and integrate fragmented pieces of information to obtain a holistic understanding of the patient's situation. Addressing complex care needs is crucial for a holistic approach to care and treatment if care is to be truly caring [10, 28]. Thus, our findings highlight that when EHR prioritise predefined, standardised and word-limited elements, it compromises nurses' collaboration and their ability to provide holistic, person-centred care [9, 10] due to the lack of opportunity to incorporate important aspects of patients' lifeworlds into cross-sectoral communication.

Challenges arising from the utilisation of EHRs in cross-sectoral collaboration have been investigated previously [2, 29, 30]. For example, Chao et al. [29] point to difficulties in collaborating between clinicians raised by the introduction of the EHR and increasingly fragmented patient information, which affected the collaboration between hospital and homecare settings. Likewise Varpio et al. [30] and Norlyk et al. [2] describe how the EHRs with its fragmented data interconnections, sketching of different elements of the patient's situation in diverse categories and lack of direct contact hindered HCNs' ability to construct a holistic picture of the patient. This resulted in the loss of a shared understanding of the individual patient, as well as increased time spent on reassessing the patient's situation as a whole [30]. Our findings add to the above studies by illustrating an apparent contradiction. Although both HNs and HCNs demonstrated willingness and competences to conduct a holistic patient assessment, their collaborative efforts towards a shared goal and a safe discharge process for older patients with complex care needs were actively and severely impeded. This obstruction arose from the varying organisational structures of EHR systems within each sector determining the nature of communication between the nurses. In line with this finding, Høgsgaard [18] draws attention to the conflict between the desire for smooth cross-sectoral collaboration and the lack of attention to the influence of organisational structures where efficiency and standardisation are the highest priority, but fail to facilitate coherent patient trajectories.

Our findings also showed that HN assumed HCN possessed the necessary specialised knowledge from medical records, leading to communication failures. However, limited access to records and guidelines hindered HCNs in coordinating care, leaving them feeling uninformed and

challenged. Similar to these findings, Norlyk et al. [2] identified the paradox, whereby HCNs required comprehensive and adequate information to deliver specialised care in response to the increasing demands within home-care settings; yet, this crucial information remained inaccessible to them. Our findings identified this paradox as a key challenge in the cross-sectoral collaboration between HNs and HCNs discharging older patients with complex care needs. Our findings illustrate that the consequences of failing communication and collaboration between HNs and HCNs are highly concerning as they could lead to multiple readmissions, sometimes even within the same day, leading to undignified care. The risk of repetitive readmissions due to failing collaboration between sectors has also been emphasised in previous research [7, 19]. Our study also underlines how heavily HCNs rely on HNs for the exchange of crucial information, including future appointments and blood tests, to ensure coordination and proper care provision for patients with complex care needs.

Our findings further emphasise that trust and mutual understanding between HNs and HCNs, driven by their shared aspiration for successful collaboration, are essential in their communication. However, Andersen et al. [16] show that nurses can consider phone calls to be time-consuming and potentially foster conflicts if the tone and attitude are not collegial. Our findings thus differ as we found that HNs and HCNs mainly met each other with a positive attitude when they resorted to direct personal communication, and that possible tensions arising in their collaboration were directed at the organisational structures they worked under rather than at each other. This finding is supported by recent studies where the authors argued that organisational systems in healthcare can obstruct the provision of high-quality nursing and that comprehensive and customised patient care were provided despite the organisational system rather than because of it [31, 32].

Our study further claims that due to the inadequacy of one-way communication in EHRs, HNs and HCNs resorted to phone calls and online meetings to overcome this obstacle. Thus, they bypassed the system to engage in direct collaborative dialogue to ensure the handover of sufficient information about the patient's complex care needs facilitating the provision of holistic and person-centred care. Similar to this finding, Standås et al. [31] highlight how nurses have to “game the system” [31] to maintain their professional ideals of individualised and holistic patient care. Furthermore, Andersen et al. [16] similarly reported that caring especially for patients with complex healthcare needs motivated nurses to use phone calls as a communication tool to establish patient trajectories grounded in a holistic understanding of the patient's situation. Likewise, in a recent comparative study

of Denmark and Sweden, the authors contended that Danish HCNs, more frequently than their Swedish counterparts, had to resort to direct contact to receive necessary information about a patient from HNs. This stood in contrast to the Swedish scenario, where HCNs shared EHRs with HNs who had access to medical information about the patient [17]. Hence, we question the current attempt to bridge the transitions of older people by introducing transitional care nurses [33]. This would hinder direct dialogues between HNs and HCNs and contribute to potentially increasing the invisible wall rather than supporting their collaboration.

Finally, our findings revealed a notable paradox: while HNs and HCNs achieved successful cross-sectoral collaboration by working around the EHR system and engaging in dialogue, they inadvertently masked the limitations of one-way communication and restrictive organisational structures that hindered HCNs' access to medical information. Consequently, the deficiencies in the current EHR system for cross-sectoral collaboration regarding patients with complex care needs remain invisible.

STRENGTHS AND LIMITATIONS

We drew on Lincoln's and Gubas' generic criteria for trustworthiness [34] as suggested by Braun and Clarke [22, 23, 25]. The analysis was conducted by the first and last author. To establish credibility, they discussed potential discrepancies in interpretations before reaching consensus [34]. Additionally, the authors preserved an audit trail of the analysis process to establish dependability and confirmability [34]. To enhance transferability, we have provided a detailed description of the research context including information about participants, the settings and the research methods allowing readers to assess the applicability of the findings to other contexts [34].

The participants were employed in different municipalities and hospitals across Denmark and exhibited great diversity in their years of work experience. This ensured a diverse participant selection of nurses across sectors in Denmark that aligns with the selection strategies as described by Braun and Clarke [22]. Group interviews may not delve deeply into individual perspectives leading to superficial insights [35]. Nevertheless, the inclusion of HNs and HCNs together in group interviews facilitated comprehensive discussions on similarities and differences between the two parties and allowed for the emergence of topics beyond those in the interview guide, thus enhancing the credibility of the findings. In a single interview session, only two to three participants were present, limiting the opportunity for interaction among multiple participants.

Another potential limitation of the study could be the utilisation of the digital platform Zoom for conducting the group interviews. However, digital platforms have been described by researchers and participants as a high-quality viable alternative to face-to-face interviews [36, 37]. The relatively smaller representation of HNs compared to HCNs in this study could be viewed as a limitation. To address this limitation, the authors strove to include at least one HN participant in each group interview to facilitate dynamic discussions between participants from different sectors.

CONCLUSION

This study found that failures in EHR communication between HNs and HCNs, resulting from restrictive organisational structures, impaired their intraprofessional collaboration across sectors and posed a risk to the coordination and delivery of specialised, safe and dignified care for older patients with complex care needs. Our study highlighted that trust and mutual understanding between HNs and HCNs were driven by their shared desire to achieve successful collaboration across sectors. Paradoxically, despite HNs and HCNs demonstrating willingness and competencies to conduct a holistic patient assessment, their ability to collaborate towards a shared goal and ensure a safe discharge process for older patients with complex care needs from hospital to homecare was hindered by the diverse organisational structures within each sector that shaped the communication between them. Therefore, HNs and HCNs found it necessary to bypass the EHR systems and engage in dialogue to provide holistic care when discharging older patients with complex care needs. However, by HNs and HCNs compensating in this way for counter-productive organisational structures, the problems remained invisible. Thus, recommendations for clinical practice include addressing and revisiting challenging organisational structures and an increased focus on failures in EHR communication between HNs and HCNs resulting from those structures.

AUTHOR CONTRIBUTIONS

MFH, AN, BM, and KG contributed to the study design. MFH, AN and BM contributed to the data collection. MFH and AN did the analysis. All authors agreed on the final version of the manuscript

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CONFLICT OF INTEREST STATEMENT

The authors declare there are no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data supporting the findings of this study can be obtained by contacting the authors upon request. Please note that the data are not publicly available due to privacy or ethical restrictions.

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