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BALANCING DUAL RESPONSIBILITIES: NURSES AS SUPER USERS IN THE POST-IMPLEMENTATION OF EHR SYSTEMS

Research paper

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Abstract

This paper examines the critical role of nurses with a dual role as super users in the post-implementation phase of a new electronic health record (EHR) system, focusing on the challenges they face in maintaining and optimizing system usage. Drawing on qualitative interviews with super users from three Danish hospitals, the research reveals that a lack of formalized structures, declining organizational support, and insufficient training have hindered the potential of super users to fully contribute to EHR optimization. Despite playing a key role in bridging the gap between clinical staff and IT, super users often struggle with balancing their dual responsibilities as nurses and super users. This study contributes to the understanding of the post-implementation dynamics in healthcare technology, offering insights into how healthcare organizations can better leverage super users to enhance EHR functionality. This paper argues that recognizing and supporting the super user role beyond the go-live phase is crucial for achieving long-term success in EHR system optimization.

Keywords: Super users, post-implementation, electronic health records, healthcare, technology-use mediation, innovation

1 Introduction

The implementation of electronic health record (EHR) systems in healthcare has revolutionized the management of patient information, clinical workflows, and healthcare delivery. While the initial roll-out of these systems garners significant attention and resources, the process of fully integrating and optimizing EHR systems extends well beyond the go-live phase. The implementation of new technologies in organizations often fails because the mutual adaptation of the technology and the local context of use is neglected (Bansler and Havn, 2006; Kuziemsky et al., 2021). Scholars agree that for technologies to be in actual use in workplaces it demands for a two-stage process consisting of the need for the system to be adapted to work practices so it support the local needs and for the work practices to be adapted to systems to exploit the possibilities afforded by the system (Hertzum and Simonsen, 2019). The adaptation process involves ongoing innovation of the technology and the actual utilization of it.

This paper focuses on the time area after the go-live-phase, also known as the post-implementation phase. This phase, often overlooked, is crucial for realizing the full potential of EHR systems and ensuring they meet the evolving needs of healthcare professionals. The ongoing adaptation process calls for active engagement by the workers, as only they can provide the actual local context the system will need to be embedded into. Central to the post-implementation phase is the critical gap between the mere deployment of technological solutions and their actual effective use by end-users (Kuziemsky et al., 2021). One way to address this gap might be through what is referred to as super users. Super users in this case refers to regular nurses who take on additional responsibilities in order to facilitate EHR

innovation in their individual departments. These are individuals that can be considered technology-use mediators, utilizing their context-sensitive knowledge to the EHR system, providing a bridge between frontline clinical staff and the technical functionalities of the EHR system.

Previous research acknowledges the significance of investigating the concept of super users in relation to implementation of new technology, whether that be inside or outside hospital settings (Mørch and Åsand, 2006; Obwegeser et al., 2019; Klemets and Storholmen, 2020; Knudsen et al., 2022). Despite the agreements on the benefits of super users, the role of super users in the post-implementation phase remains underexplored. During the implementation phase, super users are acknowledged as critical in ensuring that the technology is tailored to clinical workflows and providing essential support and training to their colleagues (Mørch and Åsand, 2006; Shea et al., 2016). However, as organizations shift their focus away from the implementation, the dual responsibilities of super users – continuing their professional roles while providing ongoing support for the system – become increasingly difficult to manage. In the case of nurse super users, this duality creates additional pressures, as they must balance the demands of their clinical duties with their super user responsibilities. Many nurse super users report frustration with the lack of time, training, and institutional support for their role, despite recognizing the ongoing need for EHR optimization and user support.

This paper investigates the experiences of nurse super users two years after the implementation of a new EHR system in three hospitals in Denmark. By focusing on the post-implementation phase, this study highlights the persistent challenges faced by super users and explores the implications of these challenges.

The objective of this paper is to shed light on the critical, yet underappreciated, role of super users in the long-term success of EHR systems. It argues that while super users can play an important part in the necessary continuous innovation of the system, the lack of institutional support in the post-implementation phase reduces the effectiveness of both their clinical and technology-mediating responsibilities. This study calls for greater recognition of the super user role beyond the go-live phase, with recommendations for improved support mechanisms to ensure the optimal usage of EHR systems in healthcare settings.

2 Background

2.1 The Post-implementation Phase

Many health projects may often begin quickly to address the initial challenges in the go-live phase of technology, but they often struggle to deliver effectively in the post-implementation phase (Knudsen et al., 2022). This encapsulates an important problem: What good is an implementation of an EHR system (or any other technology) if it is not properly integrated into actual practice? To overcome this problem it is crucial to consider the contextual factors which includes the operational practices and dynamics also after the initial implementation phase (Kuziemytsky et al., 2021). Despite the acknowledged problems in the post-implementation phase, solutions on how to solve this remain unexplored, leaving organizations uncertain of how to proceed after the initial go-live phase.

Current literature does not offer one clear definition of the post-implementation phase, despite many implementation failures being attributed to challenges that arise during this critical period (Kuziemytsky et al., 2021; Ringdal and Farshchian, 2024). In this paper, the post-implementation phase is defined as the years following the go-live phase, during which technological solutions must be adapted to support local work practices, while work practices also need to be adjusted to fully leverage the capabilities offered by the system.

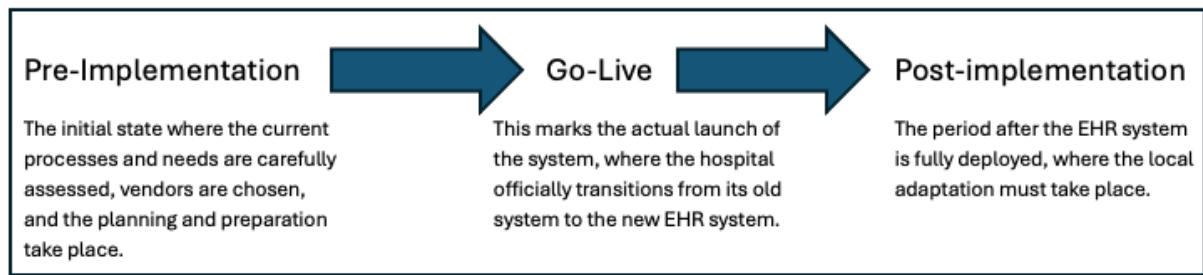


Figure 1. The three key stages in the implementation process as defined in this paper.

The post-implementations phase is especially complex in healthcare due to the dynamic nature of the field, which is constantly evolving with new regulations, guidelines, technological advancements, new treatments, and other innovations. As a result, the requirements established during the initial procurement process often become outdated by the time the post-implementation phase occurs (Ringdal and Farshchian, 2024).

2.2 Super users

The super user role is known by various names, such as power user, champions, lead user, and more. Regardless of their title, these individuals are usually skilled professionals in their own domain who also take on important responsibilities as user representatives in system development, implementation, training, and support. Mørch and Åsand (2006) define super users as: “regular employees with in depth knowledge of one or more of the organization’s computer applications without being programmers” (Mørch and Åsand, 2006).

Previous research acknowledges the significance of investigating the concept of super users in relation to implementation of new technology, whether that be inside or outside hospital settings (Obwegeser et al., 2019). Besides offering technical assistance, super users can act as catalysts for organizational change, guiding the adoption of new technologies and shaping the organizational culture (Simmons, 2013). Acting as knowledge brokers between IT-experts and end-users, super users facilitate complex knowledge-sharing processes crucial for successful implementation projects (Haines and Goodhue, 2003). Research shows that super users can play a vital role in promoting appropriate use in care delivery and streamlining processes. Their familiarity with unit operations allows them to serve as both technology coaches and troubleshooters (Haines and Goodhue, 2003; Obwegeser et al., 2019). Existing research shows that super users can serve a dual role: Firstly, they can play an outward-facing role by providing insights into internal organizational processes to the project team, aiding in the development of the technological requirements, and assisting in customization and innovation planning. Secondly, they can fulfill an inward-facing role by offering training and first line of support to their colleagues both during and after the implementation (Obwegeser et al., 2019).

In healthcare the need for super users is gaining more and more attention. Ash et al (2004) emphasizes the need to train more individuals capable of understanding both the clinical and technological domains, serving as translators to bridge the gap between them. Knudsen et al (2022) proposes the use of “context-sensitive digital integrators” as a mean to support, inform, and shape transformative technological changes as these individuals possess the deep, contextual knowledge needed to navigate the intersection of technological systems and practical application. Knudsen et al describes that these context-sensitive digital integrators can act as technology-use mediators, and describes that they can apply “deep context-sensitive knowledge, which entails situated clinical, administrative, and organizational knowledge – as well as engaging the network needed to obtain socially sustainable changes.” (Knudsen et al., 2022)

As a result of the research on super users, it is more and more encouraged in organizations to apply super users in the implementation of new technologies (Mørch and Åsand, 2006; Simmons, 2013; Shea et al., 2016; Yang, Chou and Chen, 2019; Bansler, 2021). However, the use and experiences of super users in the post-implementation of new technologies has yet to be investigated.

2.3 New Contribution and Research Aim

This study represents a first step in understanding how super users can play an essential role in the continued optimization of new technology that happens in the post-implementation phase. While previous literature has extensively explored the role of super users during the implementation phase, there has been limited attention to the challenges these individuals face once the system becomes part of routine operations. This research addresses this gap by examining the continued importance of nurse super users by focusing on their experiences two years after system go-live. The aim of this research is to understand the challenges the super users face in their roles at this stage of the implementation, and to provide insights into how these issues can be addressed to enhance their effectiveness and the overall success of EHR system implementation. The ultimate objective is to contribute to the broader understanding of how to better support super users, ensuring they can fulfill their roles effectively and thus help drive the important continuous innovation in the EHR system in their individual departments.

3 Methods

This qualitative research classifies as an interpretive case study due to its focus on understanding the subjective experiences and perceptions of super users in the post-implementation phase of the EHR system. Interpretive case studies are characterized by their emphasis on exploring the meanings and interpretations that individuals attach to their experiences within specific contexts (Yin, 2018).

3.1 Background

Denmark is seen as a leading country in the digitalization of healthcare (Nøhr, 2019). As a country, Denmark is divided into five regions, where each region is responsible for operating public hospitals within their geographical areas. As of 2022, two vendors supply the EHR systems used in Denmark. The Capital Region and the Zealand Region have both adopted Sundhedsplatformen, provided by Epic. Meanwhile, the three other regions have each employed their own EHR systems, delivered by Systematic.

3.2 Data Collection

The data collection took place in one of the beforementioned five regions in Denmark, focusing on an EHR system, provided by Systematic, which was implemented two years prior to this data collection. The data was collected in three hospitals within the same region. The data collection and analysis were exploratory, aimed at understanding how the super users experienced their roles in the post-implementation phase of the new EHR system.

To gain a thorough understanding of the EHR project in the specific region, I began by reading relevant public background material and observing demonstrations of the new system in action. Furthermore, I gained access to selected internal documents, including teaching materials, job descriptions, and organizational charts, which gave me important information on the EHR project. Additionally, a total of 22 people were interviewed. Some of these interviews involved discussions with four IT managers. This provided valuable insights into how super users were perceived from their perspective. These interviews also focused on the implementation phase, the organization of the learning process for the employees, and related topics relevant for me to gain an understanding of the pre-implementation process and the go-live phase of the EHR system.

The remaining interviews were conducted as semi-structured interviews with 18 super users representing various hospital departments within the region. These interviews provided diverse perspectives on their roles as super users. Open-ended questions were chosen, and these were focused on their experiences, their roles, and more. Interviews typically lasted one hour. The interviews were conducted in their departments' meeting rooms, and they were sometimes shortly interrupted because of phone calls or hospital emergencies as they were conducted while the super users were at work. The interviews were conducted one-on-one, apart from three cases, where multiple super users from the

same department were interviewed simultaneously. All interviews were recorded and transcribed to ensure accuracy in data analysis. For confidentiality purposes, the identities of the interviewees have been anonymized. All quotes have been translated from Danish by the author.

Besides the formal interviews, informal conversations were held with other nurses to gather supplementary insights into super user practices in their departments.

The process of data collection and analysis involved iterative steps, where initial insights guided subsequent data collection phases. This iterative method enabled the identification of themes that I could then investigate further in the next interviews.

3.2.1 Super users in this Case

In this case, the focus is solely on the nursing group's adaptation of an EHR system two years after the implementation; therefore, super users in this case consists of either nurses or healthcare assistants within the nursing group. This means that super users in this case are regular nurses who have taken on an additional responsibility acting as super users in the EHR system. The super users do not have any additional access or permissions in the EHR system. Therefore, they cannot make many of the changes to the system that they wish for. Instead, their job is to gather and forward any change requests to the IT department, assist their colleagues with questions, and ensure the correct use of the system among their fellow nurses.

4 Data Analysis

To analyze the data, a thematic analysis was used. Thematic analysis involves identifying, analyzing, and reporting patterns or themes within qualitative data. It allows for a systematic organization and interpretation of the data to uncover key insights and understandings (Braun, 2022). The analysis resulted in four key findings formulated into the following four themes: Diverse organizational approaches, post-implementation challenges, diminished support in the post-implementation phase, and navigating dual roles.

5 Findings

5.1 Diverse Organizational Approaches

The structuring of super user roles varied widely across departments, leading to diverse organizational approaches and a notable lack of formalization of the role. This disparity was evident already from the initial interviews with IT managers, where one manager stated: "You will find very different approaches in the different departments, some are really organized, others not so much". This variability was further confirmed during interviews with super users, revealing significant differences in the number of super users assigned to each department. In some departments, only one super user was selected, while in others, multiple individuals shared the responsibilities. IT managers indicated that it was up to each hospital department to determine their preferred organization of super users.

In a few departments, the super user responsibility was held by the department's assistant nurse manager. This means that the nurse already had some kind of authority over their colleagues, which a regular nurse in the same role did not have. The findings indicate that this can also mean that those who already hold a leadership role may have more time for the super user responsibilities because they already have more office time allocated, whereas a regular nurse does not. However, it can also mean that the leading nurse is not as hands-on with the system as the regular nurse might be. As one assistant nurse manager with super user responsibilities explained: "I might as well tell you, I don't actually use the system a whole lot. I spend a lot of time here [in the office] and have many other tasks." Therefore, there are both advantages and disadvantages to this setup. The diversity in organizational structure is further illustrated by the absence of formal titles for super users. Responses varied when asked about the titles: "EHR-responsible nurse," "Documentation-specialist," "EHR super user," "IT-super user," and for those

organized in groups, they mentioned they were in a “documentation group” or “EHR group.” Furthermore, there was no standardized role definition among the super users, neither across departments nor within the individual departments. Without a standardized role definition, super users often found themselves navigating their responsibilities in an ad-hoc manner. One super user explained: “(...) it’s more of an informal expectation that we just help out where needed.” Another super user noted that sometimes there would be specific assignments aligned, but that it was more the exception than the rule: “Sometimes she [the head nurse] will say we need to work on this or that specifically, but most of the time I just figure it out myself.” The lack of formalized working assignments is a significant topic of discussion among super users because it also results in some feeling demotivated in the role. As one super user explained:

“Often I don’t really know what I should do, and then I just don’t really do anything, because I feel like it shouldn’t be my job to figure it out (...) you know it takes time away from my primary duties so having to spend extra time just reflecting upon what to do is not very motivating.”

On the other hand, some super users were more accepting of this. One super user stated: “I often sit and review things in the system. What can we change here? Or might we think, this is a good idea? Let’s do it. And it’s fine with me that I get to have it my way.” This showed how the absence of specified job assignments may affect each super user differently.

Many super users recounted how they were chosen for the role with little to no formal briefing or understanding of what the position would entail. One super user recalled: “The head nurse just tapped me on the shoulder one day and asked if I wanted the role, and that was kind of it. I didn’t really know what I got myself into.” Most super users believe they were chosen because they showed the most interest in the system, or because they actively wanted the role; however, others think they were solely chosen just because they were at the right place at the right time.

5.2 Post-Implementation Challenges

The super users reported a widespread perception that the EHR system still required significant optimization, and that their fellow nurses continued to need more training in the system two years after its implementation. The super users explained that their colleagues continued to experience frustration with certain inefficiencies in the system which disrupted workflows or complicated routine tasks. The super users were acutely aware of these issues and recognized the need for ongoing improvements and continued training for their colleagues.

One of the major challenges in the EHR system, according to the super users, was the lack of standardization in the nurses’ documentation practices. Despite the EHR system’s potential to streamline processes, the inconsistencies in how nurses entered information created confusion and disorganized patient records. One super user explained: “My colleagues never really became fans of the new system, and we are definitely not documenting the right way. We are doing lots of double documentation, and the documentation is certainly not standardized.” This issue not only added to the workload but also risked compromising the quality of patient care due to incomplete or inconsistent data entry.

Another challenge raised by the super users was the system’s failure to adapt to the specific needs of different hospital units. While the EHR system was designed to function across various departments, super users noted that the standardized templates did not always align with the particular workflows of each unit. This misalignment led to inefficiencies, where nurses had to create workarounds or enter unnecessary information to complete tasks. One super user described it as “a one-size-fits-all system that doesn’t really fit anyone,” emphasizing the need for customization to better support diverse clinical environments. Many super users believed the system offered possibilities to be better aligned to meet their specific needs, but they lacked the time to explore these possibilities and implement necessary adjustments.

Moreover, the lack of ongoing training was a significant concern. Super users observed that their colleagues struggled with certain functionalities of the EHR system, functionalities that were critical for improving efficiency but underutilized due to insufficient training. Most nurses only received the mandatory basic EHR training during the initial implementation phase, which did not in any way equip

them to fully leverage the system's capabilities. As one super user remarked, "People can get by with the basics, but they don't know how to use the system to its full potential. There's been no follow-up training, and that's why we're still having problems." This lack of continued training not only slowed down individual nurses but also placed an additional burden on super users, who were frequently asked by their head nurse to do clean-up work in the system by trying to align the charts so they appeared more standardized. Most of the super users believed that they could offer some important EHR training for their colleagues if only they were provided the time for it.

The post-implementation phase also revealed challenges with the system's updates and changes. Super users reported that some updates to the EHR system were rolled out without sufficient communication or preparation, leaving nurses confused about new features or changes in functionality. This exacerbated existing frustrations and further highlighted the need for super users to serve as a bridge between the system and the end-users. However, without institutional recognition and support, super users found it difficult to do manage their role effectively.

5.3 Diminished Support in the Post-implementation Phase

One of the most prominent findings was the significant reduction in institutional support provided to super users after the initial EHR go-live phase. During the pre-implementation phase and in the go-live period, super users felt their role was more recognized and valued. They were actively engaged in training their colleagues, troubleshooting issues, and communicating feedback to the IT department. However, in the post-implementation phase, many super users reported a noticeable decline in both the formal recognition of their responsibilities and the time allocated for their role, which led to a similar decline in their own active engagement into their role. Super users described how, despite the continued need for system optimization and training, their EHR responsibilities were increasingly sidelined. One super user noted:

"Was it last spring that I told her [the head nurse] that I needed her to allocate time for us to have a day, and I would give another presentation? We need to better our documentation, but now it's a year later, and nothing has happened."

This experience highlights the dilemma the super users experience from not being given adequate time or support to improve system usage among their fellow nurses, despite leadership frequently pointing out deficiencies in documentation quality. This lack of initiative from immediate leaders dampened the motivation of many super users, who felt they were left to repeatedly push for resources that never materialized.

Beyond the diminished time allocation, super users also reported a decrease in support from the IT department. In the immediate aftermath of the system's go-live, IT consultants would regularly visit departments providing hands-on assistance. These visits were highly appreciated by the super users, who felt that direct contact with IT staff helped address issues more effectively. One super user recalled:

"She would just come around and listen to our concerns and what had been happening. (...) If there was anything she could address right away or take back to the IT department. And she would come up with tips and tricks on the spot"

The consistency of these visits created a sense of ongoing support, but super users noted that these visits had become much less frequent over time. Despite occasional check-ins, super users now felt that the IT department was less visible and less available, especially since the super users reported that they are not great at reaching out to the IT department themselves, as one explains: "Because we are so busy, we do not really reach out as much as we should [to the IT department]." Without regular contact initiated by the IT staff, the super users often felt isolated in their efforts to improve the system or help their colleagues navigate it.

In addition to the lack of institutional support, some super users who were originally organized in smaller groups within their departments noted that several group members had left due to job changes or parental leave, with no replacement being assigned. This further reinforced the perception among the super users

that their contributions were undervalued, as management did not prioritize finding even a temporary replacement.

Finally, the super users pointed to the lack of ongoing training in their roles. This left them feeling ill-prepared to handle their roles. The lack of professional development left many super users feeling that their role was stagnating and that their potential contributions to system optimization were being overlooked. Without the prospect of professional development, they also found it difficult to stay motivated to constantly take on the extra workload, especially since they had no expectation of compensation for their additional efforts, which were considered voluntary

5.4 Navigating Dual Roles

A significant challenge reported by the super users was navigating their dual responsibilities as both nurses and super users. The tension between these roles created ongoing self-reported stress, as super users often felt torn between their clinical duties and their obligations to provide EHR support. This dual-role conflict was exacerbated by the fact that their super user responsibilities were not formally integrated into their work schedules. Many super users expressed frustration at having to fit EHR-related tasks into the limited spare time they could find. One super user captured the dilemma: “I don’t get any extra time for doing this; I just have to fit it in whenever I have some spare time, and I honestly don’t have much of that.” The lack of dedicated time made it difficult for them to adequately oversee the ongoing optimization of the system and training of their colleagues. As one super user noted:

“In any case, some time needs to be allocated to it if it is to improve, that’s what I think. Because yes, we did have some time in the beginning, but we certainly didn’t have enough time to implement an entirely new system for all of our colleagues. And we still don’t.”

The continued lack of time allocated to their roles not only limited the effectiveness of super users in their dual roles but also contributed to the sense of frustration. The super users highlighted how the insufficient time directly impacted their ability to contribute meaningfully to system optimization. One super user shared: “There needs to be time to review it properly so that there is some actual quality in what we get done. Otherwise, what is the point?” For example, several super users mentioned the potential of implementing something called ‘standard phrases’ in the EHR system to streamline documentation processes for nurses. While they viewed this as a promising improvement, they would be able to make in the system for their colleagues, the lack of time to sit down and develop these phrases meant that many of these ideas remained unrealized. This inability to act on practical solutions added to the frustration super users experienced, as they felt they were letting their colleagues down.

Navigating the double role was described as challenging by many super users, who reported that the EHR duties often took a back seat to their nursing duties. As clinical demands took precedence, super users found themselves sidelining their super user tasks, even when they recognized the value of their contributions. One super user explained:

“She [the head nurse] has the best intentions and often make promises to allocate some time to my super user duties. But then there’s illness or a huge flow of patients, and well, I guess then it’s just everyday matters that take precedence, and it [the super user duties] gets sidelined again. And again.”

This recurring experience of being sidelined highlighted the inherent conflict in balancing two demanding roles without sufficient structural support. Super users often found themselves caught between the immediate needs of their patients and the long-term goal of improving the EHR system, resulting in a continuous unsatisfactory juggling act.

The consequences of this role ambiguity were profound. Super users frequently felt ineffective, unable to meet both the expectations of their colleagues and the demands of their nursing duties. Without formal recognition or clear directives, they found themselves in a constant state of tension, torn between competing responsibilities. This led to significant dissatisfaction, as many super users began to question whether the additional workload and stress were worth the effort.

6 Discussion

The findings of this study show the multifaceted challenges faced by nurse super users in the post-implementation phase of EHR systems, emphasizing how these issues become particularly pronounced after the initial rollout of the system. These challenges stem from diverse organizational approaches, ongoing system inefficiencies, reduced institutional support, and the complexities of managing dual roles. Together, these factors create a space where the potential of super users to enhance EHR effectiveness remains largely untapped.

The variability in how the super user roles are structured across departments reveals a significant lack of formalization of these positions. The absence of formalization, such as standardized titles and clear definitions of tasks, complicated the role of super users, leaving them to navigate their duties in an informal and often ambiguous manner. This lack of uniformity can lead to frustration among super users, as some may feel demotivated due to the unclear expectations, while others may thrive on the autonomy provided by less formal structures. However, the diversity of approaches highlights the need for a cohesive framework that can guide super users across departments, ensuring they have the resources and directions necessary to fulfill their roles effectively. While this lack of formalization was also present during the initial implementation phase, the early responsibilities of super users were more clearly defined: training colleagues and reporting issues, alongside more consistent support from IT representatives. Two years later, however, their work has become less concrete and more department-specific, placing greater demands on the super users. Now, they must take initiative and independently identify ways to improve both the system and its usage, requiring them to think more critically and proactively. As a result, the lack of formalization of the super user role may have a greater negative impact in the post-implementation phase.

The persistent challenges reported by super users, including ongoing frustrations with system inefficiencies and a lack of training, underscore the importance of continuous support following EHR implementation. Two years after the implementation, many super users explain that their colleagues still struggle with essential functionalities, reflecting a significant need for training and system optimization. Super users have identified issues such as inconsistent documentation practices and a misalignment between the standardized system and the specific departmental workflows. These challenges not only contribute to increased workloads and workarounds, but also risk ultimately compromising the quality of patient care. The recognition of these issues by super users indicates their crucial role as advocates for ongoing improvements in the post-implementation phase, yet their ability to effect change is hampered by limited time and institutional support.

One of the most striking findings is the substantial decline in institutional support for super users after the go-live phase. Previous research confirm the importance of continuous innovation in the post-implementation phase of new technologies (Bansler and Havn, 2006; Kuziemy et al., 2021; Knudsen et al., 2022). This reduction in institutional support not only diminishes the effectiveness of super users but also contributes to feelings of frustration and disengagement among them. This is particularly important in this case because nurse super users must balance their clinical responsibilities alongside the added demands of their super user roles. The need for sustained commitment from leadership to recognize and support the efforts of super users is essential for maintaining system effectiveness and ensuring that they can contribute to the continuous improvement.

7 Conclusion

The findings of this study highlight the important yet often underappreciated role of super users in the post-implementation of new technologies such as EHR systems. This research aims to show the significant contributions super users can make to the ongoing innovation and optimization of such technologies. To fully harness the potential of super users, organizations must focus on formalizing their roles, providing continuous training, and ensuring consistent organizational support. By addressing the challenges super users face and creating a supportive environment that values their contributions, healthcare organizations can enhance the effectiveness of EHR systems and, ultimately, improve patient

care outcomes. Future research should examine best practices for integrating super user roles within clinical settings and the long-term effects of sustained support on EHR utilization.

This work has limitations. First, the data in this case study was collected over a short period, which means it does not give a longitudinal view of the findings over time. Furthermore, while the data was collected from three hospitals, it was only hospitals belonging to one Danish region. Additionally, the limited number of super users in this case could result in an incomplete understanding of the diverse experiences and challenges faced by super users in different contexts. Hopefully, this study can inspire future research on super users in the post-implementation phase of new healthcare technologies.

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