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Laying the foundations for implementing Magnet principles in hospitals in Europe: A qualitative analysis

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ABSTRACT

Background: Magnet hospitals, a concept developed in the U.S., have been associated with improved nurse recruitment and retention, and better patient outcomes. Magnet principles may be useful to address workforce challenges in European hospitals, but they have not been implemented or evaluated on a large scale in the European hospital context.
Objective: This study aims to explore the initial phase of implementing Magnet principles in 11 acute care hospitals in six European countries. The specific objectives of the study were to investigate the type of work that characterises the early phase of implementation and how implementation leaders engage with their context.
Methods: A multinational qualitative study was conducted, with data from 23 semi-structured, one-to-one interviews with implementation leaders in 11 acute care hospitals in six European countries. Thematic analyses guided the analysis of data.
Findings: Three themes of core work processes during the early phase of implementing Magnet principles in European hospitals were identified. The first theme, 'Creating space for Magnet', describes how work was directed towards creating both political and organisational space for the project. The second theme, 'Framing to fit: understanding and interpreting Magnet principles', describes the translational work to understand what the Magnet model entails and how it relates to the local hospital context. Finally, the third theme, 'Calibrating speed and dose', describes the strategic work of considering internal and external factors to adjust the process of implementation.
Conclusions: The first phase of implementation was characterised by conceptual and relational work; translating the Magnet concepts, considering the fit into existing structures and practices and making space for Magnet in the local context. Understanding the local context played an important role in shaping and guiding the navigation of professional and organisational tensions. Hospitals employed diverse strategies to either emphasise or downplay the role of nurses and nursing to facilitate progress in the implementation.

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What is already known

- Implementing organisational models into healthcare organisations requires attention to contextual factors, on various levels.
- The Magnet model is an organisational model associated with improved clinical outcomes, lower rates of job-related burnout, and increased success in recruiting and retaining healthcare workers.
- The Magnet model is spread throughout the USA but has not been implemented at scale in Europe.

What this paper adds

- This multi-country qualitative study, unique in scope and focus, explores the early phase of implementing Magnet principles in 11 hospitals in six European countries, which has not been done in previous research.
- There is potential for both professional and organisational tensions to be exposed during the implementation of a complex organisation-wide intervention, therefore the dynamic interplay between implementation and the local context requires careful navigation.
- To facilitate the implementation of nurse-centric Magnet principles, hospitals use contrasting strategies to engage and appeal to different staff groups.

1. Introduction

Many European countries are experiencing nursing shortages, in part reflecting high levels of staff dissatisfaction and burnout (Maben and Bridges, 2020). Health workers face a greater risk of job-related burnout and other mental health challenges than those in other sectors (Shanafelt et al., 2012; Kim et al., 2018), a situation exacerbated by the COVID-19 pandemic (Maben and Bridges, 2020). The resulting loss of staff and reduced productivity (Heinen et al., 2013) place greater stress on those who remain (Dewa et al., 2017), leading to inadequate patient care and adverse outcomes (Lindqvist et al., 2015).

There are two main approaches to tackling work-related mental health issues and burnout. One focuses on the individual, seeking to build personal resilience, such as through stress management training (Panagioti et al., 2017; Foster et al., 2018). The second approach includes organisational redesign since causes of job-related burnout are often related to work environment characteristics (West et al., 2016; Panagioti et al., 2017). The second approach is widely considered to be the most promising. The Magnet hospital model is an example of an organisational model developed in the United States (U.S.). The model has been associated with positive outcomes, including higher patient satisfaction (Stimpfel et al., 2016; Aiken et al., 2018), improved clinical outcomes (McHugh et al., 2013), lower rates of job-related burnout, increased success in recruiting and retaining healthcare workers (Kelly et al., 2012; Kutney-Lee et al., 2015; Rodríguez-García et al., 2020), and financial benefits for hospitals (Drenkard, 2010; Jayawardhana et al., 2014).

The Magnet model originates from the 1980s when some U.S. hospitals were notably more successful than others in the same geographical area in recruiting and retaining registered nurses (RNs), despite a national shortage (McClure et al., 1983). These hospitals shared common features which supported RNs to provide high-quality professional nursing care. The features acted, in effect, as 'magnetic forces' to attract and retain the workforce, subsequently providing the basis of the Magnet model and the development of its underlying principles (McClure et al., 1983). 'Magnet hospitals' are characterised by five components: structural empowerment; transformational leadership; exemplary professional practice; knowledge, innovations, and improvements; and empirical outcomes (Rodríguez-García et al., 2020).

Although 608 hospitals worldwide are currently designated as Magnet hospitals (ANCC, 2023), 98 % are located in the U.S. Only one hospital in Europe (England) currently holds Magnet designation (ANCC, 2023). There is growing interest in the Magnet model amongst European hospitals as a means to increase the recruitment and retention of RNs. However, there is still limited evidence on what it takes to successfully implement the model in hospital contexts outside the U.S. (Anderson et al., 2018). Therefore, the aim of this study was to explore the initial phase of implementing Magnet principles in 11 acute care hospitals in six European countries. The specific objectives of the study were to investigate the type of work that characterises the early phase of implementation and how implementation leaders engage with their context.

2. Background

2.1. Implementation in context

In this study, context is seen as a dynamic and fluid entity with multiple contexts potentially in play at any one point in time, overlapping and interacting with one another (Meier and Dopson, 2019; Myall et al., 2020). As context varies across space and time (Ferlie and Dopson, 2005), it follows that management models need to be 'translated' to fit in a specific context (Colldén and Hellström, 2018; Rogers et al., 2021). In addition, the impact of context on action and vice versa underscores the need to explore how actors make sense of, experience and engage with their context (Meier and Dopson, 2019).

2.2. The work of implementation

Recent research on healthcare implementation has shifted its focus from specific models and contextual factors to understanding the work involved in embedding new practices in social contexts (May et al., 2009). Normalisation Process Theory (NPT) specifies four core constructs related to the work that people do, individually and collectively, to achieve implementation: (1) coherence - making sense of the intervention, (2) cognitive participation - investing in the intervention, (3) collective action - the practical work of implementation, and (4) reflexive monitoring - modifying and embedding the intervention (May et al., 2009, p. 540). The work includes, for example, translation and mapping of the intervention into the specific context to shape the implementation (May et al., 2016; Rogers et al., 2021), and creating a receptive context for change (Myall et al., 2020).

Taking an institutional perspective, Cloutier et al. (2016) highlight the function of four types of institutional work relevant to public sector reform. *Structural* work refers to establishing and formalising roles, rules, resource allocation models and organising principles that support the new practices. *Conceptual* work refers to establishing new belief systems, norms, and interpretive schemes. *Operational* work reflects the actions that shape the everyday behaviours of individuals linked with the new practices. *Relational* work relates to building links, trust and collaboration between people involved in implementing the new practices. A focus on work conducted when implementing Magnet principles in an acute care hospital can identify aspects related to successful outcomes and highlight the interplay between overlapping, competing and complementary elements of work.

2.3. Implementing Magnet principles

2.3.1. Individual level factors

Previous research suggests that personal excitement and beliefs surrounding the Magnet model play a crucial role in its successful implementation (Paquay et al., 2021). Studies conducted in the U.S. noted the important role of chief nursing officers (CNOs) in communicating their vision to empower nurses during both the Magnet implementation (Grant et al., 2010) and re-designation (Urden et al., 2021) processes. A similar trend was observed in the first hospital in England to have adopted the Magnet model, where the senior leadership demonstrated their strong commitment to the idea (Aiken et al., 2008). This

highlights the importance of nursing management in instilling passion and direction amongst the nursing staff (Aiken et al., 2008).

2.3.2. Organisational level factors

A study of Magnet re-designation in the U.S. emphasised the importance of collaboration across the organisation, engaging the bedside nurse and ensuring their voice is heard, whilst also securing support from the chief executive officer (CEO) and hospital board (Urden et al., 2021). The study also highlighted the need for interdisciplinary commitment and collaboration to sustain the Magnet culture (Urden et al., 2021).

A recent feasibility study conducted at a university hospital in Belgium, aiming to obtain Magnet designation, found that the hospital's human resources management (HRM) policy was a significant obstacle (Paquay et al., 2021). According to the interviewees, the HRM staff lacked a proper understanding of nursing work and followed a bureaucratic and rigid approach that hindered any efforts to bring about change (Paquay et al., 2021). Similarly, in a Dutch teaching hospital that adopted a professional practice model based on Magnet principles, management offered various activities to promote continuous education for nurses (Bloemhof et al., 2021). However, the nurses did not engage in these activities, as they did not see any significant financial or non-financial rewards (Bloemhof et al., 2021).

2.3.3. External collaborations and wider socio-political context

Other research on implementing Magnet principles in the U.S. emphasises the significance of partnerships beyond the hospital where the implementation is taking place. Collaborations with universities (Nelson-Brantley et al., 2020) and twinning with other hospitals (Aiken and Poghosyan, 2009) are examples of partnerships that can provide additional support for change.

The wider socio-political context also plays a role. A U.S. study found that the presence of hospitals in the same area working towards Magnet designation strongly predicts other hospitals following suit (Richards et al., 2017), driven by the highly competitive market. In contrast, in the only English Magnet hospital at the time, Aiken et al. (2008) found motivation for Magnet designation arose internally, making organisational change more vulnerable to externally driven changes.

3. Methods

Data for the study presented here were collected in the process evaluation component of the Magnet4Europe study (available at Magnet4Europe.eu). Magnet4Europe evaluates the Magnet model as an organisational intervention in European hospitals, with outcomes including mental health and well-being amongst RNs and physicians. The process evaluation component explores the organisational process, the role of context, and potential barriers and facilitators to implementation in the participating hospitals. The data from the first round of qualitative interviews included in the process evaluation were used for the analysis in this study.

Below we present a summary of the main Magnet4Europe study, with a detailed protocol published elsewhere (Sermeus et al., 2022).

3.1. Magnet4Europe intervention

The goal of the Magnet4Europe intervention was to reduce burnout and adverse health and mental health outcomes of hospital clinicians through improvements in hospital work environments (Sermeus et al., 2022). The Magnet4Europe intervention consists of several distinct components: (1) one-to-one twinning between European hospitals and U.S. Magnet-designated hospitals, (2) learning collaboratives with online and face-to-face meetings to share best practices between participating hospitals, (3) a critical mass of hospitals, (4) feedback to hospitals on workforce surveys on working conditions and well-being, and (5) a Magnet4Europe gap analysis tool (adapted from the ANCC Magnet Gap Analysis) and the Magnet Application manual (ANCC, 2019) describing the Magnet principles. Participating hospitals had autonomy in controlling their implementation process. This allowed them to independently manage their internal affairs, appoint appropriate personnel, and adapt intervention components to fit their specific circumstances. The choice of applying for ANCC Magnet recognition was optional.

3.2. European Magnet4Europe hospitals

Sixty-seven acute care hospitals in Belgium (BE), the United Kingdom (UK), Germany (DE), Ireland (IE), Norway (NO), and Sweden (SE) accepted the invitation to participate and were subsequently included in the Magnet4Europe study. Hospitals were eligible to participate if: (1) no ANCC Magnet designation had been acquired in the past or at the time of intervention start, (2) they had >150 beds, and (3) the hospital was focused on acute care for adults, including medical and/or surgical wards (Sermeus et al., 2022). Of these 67 hospitals, half were randomly allocated to an immediate intervention group (Group 1) whilst the remaining hospitals were scheduled to start their implementation some months later (Group 2) (Sermeus et al., 2022).

Hospitals were recruited to the study before the COVID-19 pandemic, which hit Europe two months after the launch of Magnet4Europe. Consequently, the first phase of the Magnet4Europe intervention took place whilst hospitals in Europe and the U.S. were responding to the pandemic.

3.3. Sampling in the process evaluation

3.3.1. Case hospitals

Purposive sampling was used to select two Group 1 hospitals from each country (BE, DE, SE, UK, IE) with the highest and lowest levels of reported burnout, measured in the baseline staff survey (Sermeus et al., 2022) using the Burnout Assessment Tool (BAT) (Schaufeli et al., 2020). BAT offered clinically set cutoff scores (Schaufeli et al., 2020) and an even distribution of staff responses amongst hospitals in each country enabled the ranking of hospitals. This sampling approach sought to capture potential differences in motivation and ambition amongst hospitals. The one participating hospital from Norway (NO) was also included. The 11 selected case hospitals included both publicly and privately owned hospitals situated in rural and urban regions across the six countries.

3.3.2. Interviewees

Strategic sampling was used to identify two key individuals in each case hospital who held a leadership role related to their hospital's Magnet4Europe implementation process. The person could be the coordinator of the hospital's Magnet4Europe team or a project sponsor at the hospital executive level. Potential candidates were contacted by a research team member in each country and given written information and the opportunity to discuss participation in the study. The sample size was guided by the concept of information power (Malterud et al., 2016). Very specific informants were recruited to gain insights into the implementation process. The theoretical framework of the study and the semi-structured interview guide allowed for dialogue between respondents and interviewees. Therefore, it was decided that two representatives from each hospital would be suitable, both with an understanding of the implementation process, but from slightly different perspectives. Participation was voluntary and informed consent was obtained from all interviewees before the interview. Ethical approval was obtained by relevant committees in all participating countries before the initiation of the study.

In total, 23 Magnet4Europe leaders were interviewed. Two individuals were interviewed from each case hospital except for one hospital where two people shared the role of Magnet4Europe coordinator, so three were interviewed. See Table 1 for a description of interviewee characteristics.

Table 1
Description of sample (no of interviewees in brackets).

Position at the hospital:

- Chief Nursing Officer or equivalent (8)
- Quality improvement position (10)
- Research, education, and/or Human resources (5)

Leadership and/or staff responsibility:

- Held leadership positions (21), of which a majority included staff responsibilities (15)

Length of experience in current position:

- 3 months to 21 years, average 7 years

Length of work experience in current hospital:

- 5 months to 55 years, average 18 years

Professional background:

- RNs with various levels of specialist training and academic degrees (20)
- Other professions included pharmacists and psychologist (3)

Role in the Magnet4Europe implementation process:

- Project managers, e.g., Magnet4Europe coordinator (10)
- Project sponsors, e.g., members of a steering group and/or hospital executive board (10)
- Members of the hospitals' Magnet4Europe implementation team (3)

3.4. Data collection

The design and focus of the process evaluation were guided, in different ways, by the UK Medical Research Council (MRC) framework for designing and evaluating complex interventions (Moore et al., 2015) and Normalisation Process Theory (NPT) (May et al., 2009, 2018). As NPT focuses on both the understanding of an intervention and the work that individuals and groups do to enable an intervention to become normalised (May et al., 2018), the interview guide (see Supplemental material) was designed to capture this. The interviews began with questions on professional background, work experience, and the role and mandate of the interviewee. Thereafter, three areas were covered: Organisational aspects (e.g., perceived culture, and relationships between professions at the hospital), implementation process (e.g., starting up, efforts and activities conducted, staff involvement and engagement, perceived barriers and facilitators), and perceived impact of implementation (e.g., new structures, policies, changes in clinical practice).

Data analysed here are based on the 23 semi-structured interviews conducted by 1–2 members of each country's Magnet4Europe research team in the 11 case hospitals. Interviews were carried out between November 2021 and January 2022, approximately one year after the start of the intervention. Interviews lasted between 20 min and 2 h, averaging 1 h. Due to pandemic restrictions, all interviews were conducted online using Microsoft Teams or Zoom, in the interviewees' native language. Interviews were recorded and transcribed verbatim in their original language to preserve contextual and cultural meaning. Original audio files and transcripts were stored in a secure location in each country, accessible only to relevant researchers.

The researchers, as representatives of each European country in the project, formed a working group to coordinate the qualitative data collection in each country and to collaborate on the analysis of data in online monthly meetings. As interviewing experience varied in the group, senior researchers with more experience mentored junior researchers through recurring online meetings, as well as individual meetings in between. The detailed interview guide was discussed within the group to facilitate a shared understanding of the themes of the questions. The guide also included suggestions for prompts to elicit additional nuance and clarity in responses, as well as practical issues to consider before, during, and after the interviewing sessions.

3.5. Data analysis

Data analysis was conducted in two phases. The first phase focused on the preliminary analysis of the multilingual interview data, developing a coding frame, and creating code summaries. In the second phase, the code summaries were inductively analysed to identify features of these data most relevant to the aim of the study presented here. The process of analysis is described in more detail below.

3.5.1. Phase one

All researchers, most of whom had been directly involved in conducting the interviews, read through each transcript independently several times in their native language to familiarise themselves with the data. Early online meetings in the working group focused on sharing reflections on the data as a whole to enable all researchers to familiarise themselves across the data sets and between the different country contexts.

Next, a core team comprising JB, LSA, and IS developed a coding frame that covered three main areas: the organisation (e.g. culture, relations between staff), the implementation process (e.g. efforts and activities, barriers and facilitators), and mechanisms of impact (e.g. staff responses, changes to existing structures). The codes were guided by the UK Medical Research Council's recommendations (Moore et al., 2015) and were also linked to the themes of questions in the interview guide. The coding frame was discussed and refined in the working group to develop a shared understanding of the codes. The core team also provided written coding guides to ensure consistency in coding practices amongst researchers.

In the next step, all researchers systematically mapped each interview transcript to the coding frame in the language in which they were generated, to preserve meaning and context. All data in each transcript were considered for relevance to each code. The coded data for each interview were then synthesised into code summaries (Corbett et al., 2022) and translated into English to make data accessible and manageable in the multilingual research context. Illustrative verbatim quotes, translated into English, were included where relevant. The summaries, balancing brevity and detail of data, enabled mapping and interpretation across the whole dataset. Code summaries from each country were compiled in Excel files and shared in the working group through a secure online environment.

Online drop-in sessions were held between whole group meetings where researchers could access further support from the core team (LSA, JB, IS). In addition, to support the coding process and "sense check" each other's written code summaries, researchers from different countries with similar languages (i.e., NO-SE, IE-UK, and BE-DE) conducted separate meetings to cross-check and discuss findings.

The written summaries were supplemented in working group meetings by the systematic presentation (in English) by each researcher of verbal data summaries against each category. These presentations and the ensuing discussions informed modifications to initial findings and enabled preliminary identification of patterns across the whole dataset.

3.5.2. Phase two

In the second phase, the code summaries were analysed thematically (Braun and Clarke, 2006) by the core team. Continued analysis focused on identifying the nature of work involved in the early phase of implementation and how implementation leaders engaged and interacted with the context.

The code summaries were scrutinised for patterns, including similarities and variations, between individual participants and across hospitals. Through this process, IS inductively developed preliminary themes reflecting three key processes (including work and engagement with context) identified in these data and the contexts in which these processes occurred. The themes were discussed within the working group and shared with the whole Magnet4Europe consortium and refined based on feedback. Themes were then systematically tested by

IS, JB, JE and LSA to check that all relevant data from the data summaries were accounted for and to further develop and clarify the themes and examine their interconnectedness (Pope et al., 2020). The final themes were: Creating space for Magnet, Framing to fit: understanding and interpreting Magnet principles, and Calibrating speed and dose.

4. Findings

Three themes of core work processes characterising work during the early phase of implementing Magnet principles in European hospitals were identified. The first theme, 'Creating space for Magnet', describes how work was directed towards creating space for the project, both in terms of political space (e.g., through securing support across organisational hierarchies), and organisational space (e.g., organising implementation teams and allocating resources). The second theme, 'Framing to fit: understanding and interpreting Magnet principles', describes the translational work to understand what the Magnet model entails and how it relates to the local hospital context. Finally, the third theme, 'Calibrating speed and dose', describes the strategic work of considering internal (e.g., shortage of staff) and external factors (e.g., the COVID-19 pandemic) to adjust the process of implementation.

Findings are presented with quotes to illustrate analytical points. Repeated discussions in the working group have ensured the quotes presented in the findings are fair representations of these data. Quotes are labelled H1P1, where H is Hospital and P is Participant with numbers reflecting the different hospitals and interviewees in each hospital.

4.1. Creating space for magnet

The first year was viewed as a preparatory phase, exemplified by one interviewee: "*The implementation has not started yet, it is more preparation that has started*" (H9P1). In this phase, several interviewees emphasised the necessity of allocating sufficient time and resources to create space for the additional work required to prepare for implementation. Most reported assigning a specific person as Magnet4Europe coordinator, but the time allocated to this role varied, from a full-time position to about 10 % of an existing post.

Coordinators reflected on the challenges of positioning the Magnet4Europe project in relation to ongoing work in the hospital. As one interviewee said: "*And then there is the connection to the different boards, management teams and so on, and our other projects and a thousand other things that are going on. My role includes trying to see, well this can probably fit in there, or maybe here…*" (H1P1).

Most interviewees recognised the importance, but also the challenge of project management in taking on an organisation-wide intervention. They described different strategies for organising such a large-scale project where various groups needed to be created (e.g., project teams, steering groups, and working groups). Complicated by nurse shortages and the COVID-19 pandemic, interviewees reported difficulties recruiting clinical staff to project work groups as most staff were caring for COVID-19 patients. Likewise, it was hard for senior management who were also heavily engaged with the pandemic response to find time to participate in steering groups.

Several interviewees expressed feelings of frustration and isolation. They explained that their position as the Magnet4Europe coordinator and project manager was challenging due to the lack of public endorsement and proper mandate from the management. One interviewee describes: "*I am a sole voice banging a sole drum with people wearing earmuffs /…/ it is quite isolating because you do very much feel that you are on your own (pause)… because you don't sit in an operational line,… you're not a strategic kind of nurse, I'm not a director of nursing or anything so, it's a very odd place to be, you don't manage a team*" (H8P2).

Interviewees described the importance of creating legitimacy for the project amongst those in executive management positions who needed to approve the endeavour: "*Magnet coming from senior management is a very key strategic decision*" (H5P2). However, such support was not enough. Failure to anchor engagement both vertically and horizontally, some interviewees argued, could result in a potential barrier as implementation confronted deep-rooted power structures, often arising from perceived status differences between different professions or organisational roles. One interviewee described how this might be addressed: "*When choosing participants for the working group, our hospital director was very careful not to choose only nurses… since she wanted the ideas of Magnet to be put in a broader perspective*." (H2P2). Another interviewee highlighted the importance of involving clinical staff to avoid polarisation between different levels in the organisation: "*Those who work clinically often say: 'they have no idea up there'*" (H1P1).

One interviewee regretted not involving clinical staff already from the start: "*We realised too late that we did not involve the working staff enough and that is kind of the whole purpose of Magnet… Maybe we should have done that sooner – on the other hand it might have slowed us down… We can't know… but it is something we might have done differently if we were to do it all again*" (H10P1).

Several interviewees believed that success in implementation relied on Magnet4Europe reaching across the organisation with active participation by many staff groups across different organisational levels. To encourage a bottom-up approach to the implementation, interviewees described identifying and recruiting particularly motivated staff, preferably in key organisational positions. Magnet4Europe coordinators, in particular, emphasised the importance of enthusiasm and passion, in both themselves as project leaders (one interviewee described herself as a '*fiery spirit*'(H1P1)), and in managers and clinical staff. Further exemplified by the interviewee: "*Nothing will be done unless the first-line managers know about Magnet and feel passionate about the model*" (H1P1). Also highlighting the role of enthusiasm, another said: "*I've got some real key senior leaders who have great qualities as well and credibility, who are real enthusiasts around this so, that's been a key enabler…* [they] *are the people who are going to be doing the majority of the work of selling* [Magnet] *for me at the end of the day…/…/…the Chief nurse's passion for the program has definitely made it easier*" (H7P2). Once these particularly motivated people were on board, they could act as 'Magnet4Europe champions', further supporting the creation of organisational, political and mental space for Magnet in the hospital.

The interviewees described the importance of good relations with different support functions. For example, involving the competence of human resources (HR) early on was noted as a strategic decision: "*We started a steering group with the CNO, head of HR and myself*" (H10P1). In one hospital, one interviewee described how poor relations with the HR department instead created obstacles: "*We wanted to work with the development of nurses' roles and competencies, but we were stopped, because they were already doing that within HR. And it was not possible with two different tracks there, we were told*" (H2P2). In contrast, in another hospital, good relations with the communications office were seen as a major advantage as they supported the Magnet4Europe team in producing informational videos and pamphlets.

4.2. Framing to fit: understanding and interpreting Magnet principles

Opinions varied as to why their hospital joined the Magnet4Europe study and what it hoped to gain. For example, in one hospital the interviewee saw potential for the Magnet model to solve concrete challenges: "*The staffing issue I think was the reason why the top management wanted to join. /…/ Magnet was seen by management as an important piece of the puzzle to manage that patients are coming in, in increasing numbers and at a higher speed and we must manage that*" (H1P1). In another hospital, perceived benefits of implementing Magnet principles were described in more abstract terms: "*Magnet is a cultural change /…/ it's the whole process of how we … how do we really give voice to the person at the bedside… to me that really is the icing on the cake for patient care. That's what's attracting me to Magnet because I*

really think it can just do so much for nursing" (H5P2). This interviewee also commented that, in their view, the professional role of the nurse had become unclear, and they hoped that their participation in the Magnet4Europe project could help clarify it.

To effectively promote the Magnet model and customise it to their hospital's needs, interviewees reported the need to actively interpret the meaning of Magnet and gain a deeper understanding of its components. Perceptions of what Magnet entails varied, with some interviewees describing the Magnet model as scaffolding, a framework within which the hospital could organise its existing practices, whilst others described it as a model that would require the hospital to undertake substantial reorganisation.

A perceived vagueness in the definition of Magnet principles allowed some to remark that '*everything can be Magnet*' (H1P2), meaning existing activities could be re-labelled as Magnet-related activities. However, some interviewees also noted how this vagueness could make it difficult to attribute specific outcomes to the process, which in turn was seen as important for the legitimacy and credibility of participating in Magnet4Europe.

In the sense-making process, several interviewees described receiving support from their U.S.-based Magnet-twins and national networks with other Magnet4Europe hospitals involved in the same country. This support offered several benefits. For example, one interviewee described how the national network supported 'translating' the Magnet model to their national linguistic and cultural contexts and enabled discussion and shared problem-solving related to contextually based challenges in the implementation process. The U.S. Magnet-twin played a different role at this early stage and was seen as a valuable and supportive partner in understanding the Magnet model and its enculturation into a hospital. One interviewee explained: "*…that localised understanding that we all share and the complexity of setting-up shared decision-making that we all share and we all understand, whereas in America /…/ they recognise it is difficult but they've been doing it for /…/ fifteen/twenty years, it is absolutely enculturated there*" (H8P2).

Interviewees described staff responses to the hospital's participation in the Magnet4Europe project as ranging from enthusiasm: "*There are some individuals who really believe in this project and are very enthusiastic and from the medical staff there is less resistance than usual*" (H11P2), to scepticism: "*As expected, there is more resistance from medical staff who often do not want to participate:* [they say] *'For me everything is OK, I'm mentally good. Leave me alone'*" (H10P1), to cynicism: "*we do not want to have yet another project from the USA, where they tell us what to do* [interviewee quotes staff response]" (H4P1).

In adapting their implementation plan to fit their organisation and to navigate organisational politics interviewees described contrasting strategies. The first was designed to avoid intimidating or scaring staff away from the Magnet4Europe project, considering staff already overwhelmed by work due to the COVID-19 pandemic. To reduce the sense of Magnet4Europe being yet another new project, one hospital emphasised what was already being done, since: "*nurses are already doing many Magnet initiatives but don't realise it*" (H5P2). Similarly, another hospital repackaged existing work and structures: "*…we connect Magnet4Europe to already ongoing work, but at the same time, we twist the ongoing work in the directions we want*" (H9P2). The other strategy, in contrast, was to communicate how the Magnet4Europe project could help manage current challenges. Here, the interviewees explained, they deliberately presented it as a new way of working, as an evidence-based model demonstrating positive staff and patient outcomes that would also enable bottom-up decision-making.

Similarly, contrasting strategies were reported to navigate what they perceived as the 'medical power base' in their hospitals. One strategy was to 'frame' Magnet in a way that would make it less 'threatening', deliberately downplaying the nursing aspects of Magnet, as expressed by one interviewee: "*We can't present it as a model exclusively for nurse's work – rather we choose a narrative which signals inclusiveness of the whole interprofessional care team*" (H1P1). Other interviewees reported using the opposite strategy, highlighting the uniqueness of the Magnet model in its focus on nursing and nurses, as explained by one interviewee: "*We're quite clear that this is a nursing – nurse-led project and it does come from a nursing excellence framework. The reality being we work in multidisciplinary teams so, of course, we won't be excluding anyone*" (H7P2).

4.3. Calibrating speed and dose

At the start of the implementation, interviewees described how they were confronted with the operational reality of their hospitals. They found that staff were already preoccupied with other work and projects, there were shortages of staff, and some staff lacked the time and energy to engage with Magnet4Europe activities. Implementing the Magnet model was seen as a good idea 'in theory', but interviewees said people were just too busy with their day-to-day work, to be engaged in the project: "*If you ask some ward managers now, there will be some who say: 'Magnet is a great idea, but first give us staff'. That is the priority*" (H3P2). Another one said: "*…when you have people that you know are so bereft of time and just get the basic care done, they certainly don't want to be turning around, trying to take on more of this strategic work*" (H5P1).

Mindful of the practical challenges in their situational context, many interviewees emphasised their need to calibrate the speed and dose of the implementation carefully. For example, some explained how they needed to adjust and adapt their communication strategy to fit with the ongoing COVID-19 pandemic, as staff were exhausted, and communication channels were overflowing with information connected to the care of COVID-19 patients. One interviewee explained: "*…in the beginning, we were not even allowed to communicate almost anything about this because it would send the wrong signals when there was such a crisis in the hospital, and it was only COVID at some point… it felt a bit disconnected from reality to say 'now we're doing a study here…'*" (H1P2). Another interviewee said: "*We wanted to start our new governance model in January but when we asked the staff, it was clear now was not the time to launch something new like this. We decided to postpone for 6 months*" (H10P1).

One interviewee reflected on the fact that there are always things to relate to when implementing new projects: "*It's always something …. Some of the delays we've had, we might also have had if COVID wasn't there…*" (H10P2).

5. Discussion

As part of the process evaluation component in the Magnet4Europe project, this study explored the initial phase of implementing Magnet principles in 11 acute care hospitals in six European countries. The aims of the study were to investigate what type of work characterises the early phase of implementation and how implementation leaders engage with their context. The findings show that the early phase involved three overarching themes: Creating space for Magnet; Framing to fit: understanding and interpreting Magnet principles; and Calibrating speed and dose. Findings also show implementation leaders carefully navigating their context and managing different types of tensions revealed during the initial year of implementation.

5.1. The work of implementation

Our findings show, that in this early stage of implementation, the primary focus was on conceptual work: translating the Magnet principles and identifying the fit with the hospital's existing structures and practices in the local context. Implementation leaders also engaged in relational work: making space for Magnet through engaging strategically positioned stakeholders and staff groups to anchor the project in the organisation. Cloutier et al. (2016) argue that when conceptual work is carried out, it may become disconnected from

the staff's day-to-day realities and experiences. Implementation leaders recognised the importance of engaging clinical staff in project groups, but this was challenged by the ongoing COVID-19 pandemic taking priority.

The conceptual and relational work, conducted during the first phase of implementation, was seen as an essential part of preparing the organisation for embedding the Magnet model. The work involved planning for new norms and belief systems as well as challenging established cultures and beliefs. The work also included building relationships across the organisation to engage people in the implementation effort. In line with the normalisation process theory (May et al., 2009), these types of work, when performed together, aimed to facilitate shared understanding of (i.e., coherence) and investment in the intervention being implemented (i.e., cognitive participation). This, in turn, is central to facilitating collective action and reflexive monitoring, which is also needed to implement a complex intervention (May et al., 2009). Some studies suggest that relational work needs to underpin conceptual work for the successful implementation of new organisational models (Cloutier et al., 2016). Complementing this, our findings suggest that these two types of work are performed in parallel: an understanding of the Magnet concepts was created through implementation leaders forming relationships and engaging the workforce.

In this study, given the early stage of implementation, structural work mostly related to appointing people to project roles and situating the Magnet4Europe project within the hospital. Operational work, such as navigating and rearranging organisational support structures in different ways was also at an early stage. However, implementation leaders identified several tensions arising, exposing what Cloutier et al. (2016) expressed as the contradictions between the proposed new arrangements and the "ambiguities, pluralism, and contradictions associated with prior ingrained structure, incentives, ideas, and practices" (p.273), i.e. with the hospital context.

5.2. Navigating contextual tensions

The findings showed implementation leaders identified several potential contextual enablers and/or barriers to implementation. The understanding of these contextual aspects guided their conceptual and relational work, evident in the two prominent strategies used: deliberately communicating and framing the project to fit existing structures and practices, and calibrating the speed and dose of implementation to lay a good foundation for implementation.

Similar to previous research on implementing management models in healthcare (Ovretveit et al., 2012; Centauri et al., 2018), anchoring the Magnet4Europe project both vertically and horizontally across the hospital organisation was highlighted as a central strategy. For example, to avoid polarisation between organisational levels, implementation leaders made efforts to engage both top leaders as well as clinical staff. Separating Magnet from other studied management models, is the Magnet model's basis in a single profession rather than organisational processes in themselves, as is the case with, for example, Lean (Centauri et al., 2018).

The primary motivation for participation in the Magnet4Europe project was often attributed to addressing concerns related to nurses (shortage) or nursing (increase focus). However, it was evident that implementation leaders were mindful of potential conflicts with the interests of other professions, notably medical professionals. Responses to this tension varied amongst the participating hospitals. Some chose to underscore Magnet's specific focus on nurses and nursing, whilst others chose a more inclusive approach by involving multiple professions in project teams and activities. In settings where resistance stemmed from alternative power bases, leaders strategically tailored their framing of the project to resonate with non-nursing audiences, in efforts to mitigate potential threats to success.

These contrasting approaches to positioning nursing in the work to implement Magnet principles might be related to what Wallenburg et al. (2023) describe as an internal division within the nursing profession and differences in national contexts. Whilst healthcare systems in Europe share commonalities across countries, there are also significant differences that need to be acknowledged, including variations in the status of the nursing profession (Wallenburg et al., 2023). This is something to be further explored in future studies.

The COVID-19 pandemic compounded existing nurse staff shortages in many participating hospitals, creating a challenging implementation context. On the one hand, the interviewees noted a limited capacity within their organisations to engage with new ideas and practices due to the intensified pressures. On the other hand, they also recognised the project's potential to improve nurse recruitment and retention if successfully implemented. To address this tension, implementation leaders strategically used the promise of a positive impact on recruitment and retention to motivate nursing staff to engage with implementation activities and efforts.

As a model originating in the U.S., there have been calls to further investigate the extent to which the Magnet hospital model is relevant in European hospitals (Anderson et al., 2018). For example, incentives for implementing Magnet in European hospitals may differ from those in the U.S. (Aiken et al., 2008; Richards et al., 2017). In the present study, the interviewees did not reflect on system-level differences in healthcare organisations between the U.S. and Europe in relation to the Magnet model. Instead, the context was primarily associated with the individual hospital. The findings reflect research by Myall et al. (2020) and Rogers et al. (2021) which emphasises the importance of considering the dynamic relationship between implementation and the local context(s).

The findings in this study are based on 23 interviews with purposefully selected individuals in 11 hospitals participating in the Magnet4Europe project. The multinational approach involved methodological challenges related to language as well as researcher experience of qualitative methodology. To ensure consistency in data collection and analysis, close collaboration was facilitated by forming a workgroup with monthly online meetings where more senior researchers mentored experienced researchers. Researchers in each country conducted interviews and did primary analysis of data in their native language to maintain cultural and contextual meaning in the data.

Interview questions aimed to capture aspects related to the Magnet4Europe-project, however it does not claim to capture all that is going on at the hospitals. Circumstances within or outside the studied hospitals with potential influence on this early phase of implementation were not captured unless interviewees reflected on them. Acknowledging potential bias in the self-selected hospitals for Magnet4Europe, recognition, and transferability is prioritised over representativeness or generalizability. The findings reflect both similarities and contrasts in the implementation processes in the studied hospitals.

6. Conclusion

This multinational qualitative study, with data across 11 hospitals in six countries, illuminates the early phase of Magnet implementation in European hospitals. The findings highlight the pivotal role of conceptual and relational work implementation leaders engage in to lay the foundations for this process. The findings underscore the importance of translating Magnet concepts, aligning them with existing structures and practices, and creating space for Magnet within their local context. These efforts were central to the work of Magnet4Europe implementation leaders during the first year. The study also reveals how the local context shaped and guided the navigation of professional and organisational tensions, with hospitals employing contrasting strategies to either emphasise or downplay the role of nurses and nursing to facilitate progress in implementation. This nuanced understanding of the early implementation phase provides valuable insights for future efforts to implement Magnet principles in European hospital contexts.

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CRediT authorship contribution statement

Ingrid Svensson: Writing – review & editing, Writing – original draft, Supervision, Methodology, Formal analysis. **Jackie Bridges:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Formal analysis. **Jaimie Ellis:** Writing – review & editing, Writing – original draft, Formal analysis. **Noeleen Brady:** Writing – review & editing, Investigation, Formal analysis. **Simon Dello:** Writing – review & editing, Investigation, Formal analysis. **Jonathan Hooft:** Investigation, Formal analysis. **Joan Kleine:** Writing – review & editing, Investigation, Formal analysis. **Dorothea Kohnen:** Investigation, Formal analysis. **Elaine Lehane:** Writing – review & editing, Formal analysis. **Rikard Lindqvist:** Writing – review & editing, Investigation. **Claudia B. Maier:** Writing – review & editing, Investigation, Formal analysis. **Vera J.C. Mc Carthy:** Writing – review & editing, Formal analysis. **Ingeborg Strømseng Sjetne:** Writing – review & editing, Investigation, Formal analysis. **Lars E. Eriksson:** Writing – review & editing. **Lisa Smeds Alenius:** Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Investigation, Formal analysis.

Data availability

The qualitative interview data analysed in this study will not be shared due to ethical and privacy concerns.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ijnurstu.2024.104754.

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