Received: 23 March 2023 | Revised: 23 June 2023 | Accepted: 25 June 2023

DOI: 10.1111/nin.12580

ORIGINAL ARTICLE

Nursing Inquiry WILEY

Leadership moments: Understanding nurse clinician-scientists' leadership as embedded sociohistorical practices

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Funding information
Dutch Ministry of Health, Welfare and Sports

Abstract

Nurse clinician-scientists are increasingly expected to show leadership aimed at transforming healthcare. However, research on nurse clinician-scientists' leadership (integrating researcher and practitioner roles) is scarce and hardly embedded in sociohistorical contexts. This study introduces *leadership moments*, that is, concrete events in practices that are perceived as acts of empowerment, in order to understand leadership in the daily work of newly appointed nurse clinician-scientists. Following the learning history method we gathered data using multiple (qualitative) methods to get close to their daily practices. A document analysis provided us with insight into the history of nursing science to illustrate how leadership moments in the everyday work of nurse clinician-scientists in the "here and now" can be related to the particular histories from which they emerged. A qualitative analysis led to three acts of empowerment: (1) *becoming visible*, (2) *building networks*, and (3) *getting wired in*. These acts are illustrated with three series of events in which nurse clinician-scientists' leadership becomes visible. This study contributes to a more socially embedded understanding of nursing leadership, enables us to get a grip on crucial leadership moments, and provides academic and practical starting points for strengthening nurse clinician-scientists' leadership practices. Transformations in healthcare call for transformed notions of leadership.

KEYWORDS
clinician-scientist, daily work, ethnography, learning history, nursing leadership, nursing practice, nursing science, phenomenology

1 | INTRODUCTION

Nursing science is increasingly seen as important for the quality of patient care and for the transformation of healthcare (Deane & Clunie, 2021; Granger et al., 2022; Trusson et al., 2019). The British National Health Service (NHS), for example, launched a strategic plan to embed nursing research in practice and professional decision-making by creating a research environment that empowers nurses to lead, participate, and deliver research (NHS England, 2021). Also, hospitals applying for Magnet Status are required to generate new

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knowledge and implement existing evidence in the clinical setting. This led to an increased demand for nurse clinician-scientists (NCS) who combine research and clinical practice.[1] They are seen as "liaisons" between science and frontline care and are expected to show leadership in the transformation of healthcare (Flynn et al., 2017; Granger et al., 2022). However, because of unclarity in roles and scopes of practice, there is a lack of clear career paths and/or support for nurse scientists, both inside and outside clinical practice (Van Oostveen et al., 2017). Moreover, there is increased and fierce competition for funding both within the nursing field and the medical field, which potentially weakens their positions (Deane & Clunie, 2021; Granger et al., 2022; Hafsteinsdóttir et al., 2017). Strong "leadership" of academically trained nurses is proposed to strengthen the position of nursing science (Hafsteinsdóttir et al., 2017; Lange et al., 2019; Newington et al., 2022), but research on NCSs' leadership is scarce and poorly embedded in specific contexts. In this study, we aim to get closer to the actual doings of leadership by moving away from individual leaders toward an understanding of leadership embedded in practices. Therefore, instead of describing the qualifications, objectives, or performance indicators of the role of these particular NCSs, we offer thick descriptions (Geertz, 1973) of leadership practices in their daily work.

We use the concept of *leadership moments* (e.g., Ladkin, 2020) to analyze leadership in the daily practices of newly appointed NCSs who are in the midst of creating a professional role in a (Dutch) general hospital. Leadership moments are concrete "events in practices," located in time and space, that are perceived as "acts of empowerment" by the people involved. When such moments occur, NCSs show agency, set direction, take stances or position, or get things moving. Empowerment, in this sense, is about understanding the ways in which the NCSs are situated in their hospital, and how power is exercised in different ways, depending on the contexts and the people involved (Bradbury-Jones et al., 2008). This implies that leadership means different things in different moments and places; it is "sociohistoric" (Carroll et al., 2015; Ladkin, 2020). Using multiple (qualitative) methods, we analyze how NCSs' leadership evolves while they work. Becoming empowered and showing agency is part of their daily work, full of personal struggles, hidden and visible actions, and dynamic interactions (Carroll et al., 2015; De Kok et al., 2022; Larsson & Lundholm, 2010; Verhoeven et al., 2022).

Focusing on leadership moments in the context of NCSs' daily work will help us understand more about how leadership is actually "done." As such, it can be a valuable addition to other more individualistic or functional approaches to leadership that are common in the nursing leadership field. We take daily work to be broader than direct patient care; it refers to all "organizing" processes (Noordegraaf, 2015) in which NCSs can exert influence to achieve change and make a difference. We address the following question: *How does leadership emerge in everyday work practices of NCSs (combining clinical practice and research)?* To answer this question, we first briefly discuss (the history of) nursing science and nursing leadership to better understand the specific (historical) contexts from which the leadership practices of the NCSs emerge. Next, we introduce the concept of leadership moments as a way to recognize leadership. We then turn to the methods used and we present empirical findings. Finally, we discuss our findings and draw conclusions.

[1]A nurse clinician-scientist (in the Netherlands) is a bachelor-trained registered nurse with an additional master's degree in nursing science. Nurse clinician-scientists integrate their clinical work as registered nurses with research to improve patient care.

2 | BACKGROUND

2.1 | A brief history of nursing science and power balance in biomedical science

From the 1950s onward, physicians and nurses sought to academically advance and strengthen healthcare (Tobbell, 2018). While biomedical research focused on the identification, diagnosis, and treatment of specific diseases, nursing science regarded the patient as a "total person" and turned to social and behavioral sciences to help improve patient care (Tobbell, 2022, p. 322). In the late 1950s, the first nursing science programs were established in the United States (D'Antonio, 2010; Tobbell, 2018). Nurses claimed *distinctive knowledge, skills, and expertise, rooted in an understanding of patient behavior and attitudes, that they—and not physicians—would contribute to the improvement of patient care* (Tobell, 2022, pp. 322–232). Nursing science was positioned as complementary to biomedical science. Nurses became proponents of both qualitative and quantitative research methods to understand health and illness (Thorne, 2016, p. 281). However, while nurses constructed nursing science, physicians, driven by the quality assessment movement in healthcare, established biomedical science as being best able to generate objective and reliable knowledge, with the randomized-controlled trial as top of the bill research method (Jones & Podolsky, 2015).

Assuming, like the French philosopher Michel Foucault, that knowledge is intertwined with power (Foucault, 1980), the establishment of biomedical science as best able to generate "true" knowledge in the healthcare sector ascribed power to physicians as experts (Bradbury-Jones et al., 2008). This left NCSs with research outcomes that were undervalued in the (biomedical) research economy, as they generated knowledge mainly through descriptive, observational, and qualitative research methods based on social theory (Tobell, 2022). However, there are multiple ways to look at power and empowerment in relation to these historic events (D'Antonio et al., 2010). For example, despite their disadvantage, in the United States, nurse scientists succeeded in creating well-established positions for professors and PhDs in nursing. Furthermore, the recent shift from problem-oriented care toward person-centered care, in which patient goals and prevention are key (Mold, 2022), gives nurses and nursing science a vital role in the transformation of healthcare. Despite this, nursing research infrastructures remain fragile (Hafsteinsdóttir et al., 2017), and most nursing science programs currently emphasize

research methodology and have lost focus on the philosophical foundations on which nursing science was originally based (Thorne, 2016). In this study we acknowledge the power difference between physicians and nursing scientists but also move beyond this by focusing on instances in which NCSs, through "acts of empowerment," work to improve the position of nursing science.

2.2 | Contemporary thoughts on nursing leadership

Leadership studies often aim to define and measure leadership independent of a particular context (Alvesson & Spicer, 2012). They focus on leadership qualities and roles of *individuals*, often heroic, as well as on individual, competencies, skills, and effectiveness (Hutchinson & Jackson, 2013). This individual focus is present in most popular leadership styles in nursing, that is, transformational, authentic, and resonant leadership (Cummings et al., 2021). Such nursing leadership studies search for factors or interventions that lead to the development of "effective leadership" (Cummings et al., 2021). Although generating general and "clean" images of nursing leadership and optimizing leadership training are helpful, other authors show the value of studying how nursing leaders *struggle* to improve their position in healthcare organizations in daily practices (Anders, 2021; Borthwick & Galbally, 2001; Carryer, 2020; Daly et al., 2020; Gallagher-Ford & Connor, 2020; Lakeman & Molloy, 2018). This study does something similar by focusing on *leadership practices* of NCSs, instead of on *leaders* (Carroll et al., 2015; Ladkin, 2020; Raelin, 2016b). We use the phenomenological concept of "moments" to describe what this new focus entails for nursing and how the nursing leadership field can benefit from a perspective that sees leadership practices as socially embedded and evolving over time. By relating to and engaging in these practices, we can make leadership visible and stimulate change.

2.3 | Leadership moments

Approaching leadership as *moments* means that leadership becomes an entity that cannot be separated from the social and historical contexts from which it arises (Ladkin, 2020, p. 168). It happens in interaction with others in (work) environments and is, as such, always a social process in which the people involved give meaning to and make sense of *what they experience* as leadership. This means that there can never be one single definition of what nursing leadership *is*, because it does not exist without the people who enact it inside a particular community, history, or organization (Ladkin, 2020; Raelin, 2016a). To identify "leadership moments," an awareness of people working (together) in a certain place, toward an implicit or explicit purpose within a certain (historical) context, is key (Ladkin, 2020). Nursing leadership then becomes a practice in which nurses engage with others to create new meanings or directions in their work. They become empowered, show agency, set direction, and get things moving. Because these practices are always located in a certain time and space, there are no fixed "leaders" and "followers," and there is no fixed leadership "substance." Studying leadership outside of context and real experiences is not possible (Carroll et al., 2015; Ladkin, 2020; Vuojärvi & Korva, 2020). We use the notion of *moments* to make such fluid leadership visible. Moments are events or series of events in actual practices that are perceived as showing and/or symbolizing "acts of empowerment": the people involved see, feel, and/or argue that professionals such as NCSs leave a mark and make a difference.

We borrow from the work of Bradbury-Jones et al. (2008), and take power, much like leadership, not as a thing that can be possessed by someone. Rather, it is embedded in everyday practices and interactions, exercised in relations that are not fixed (Bradbury-Jones et al., 2008, p. 259). Following this, empowerment, like power, takes on different forms in different contexts. Nurses' empowerment is *"not about liberation, nor about power being distributed solely in pyramidal form; it is about understanding the 'operations' through which nurses are situated and how power is exercised variously in different contexts"* (Bradbury-Jones et al., 2008, p. 261). Approaching leadership as moments allows us to unpack these acts of empowerment over time. Focusing on locating leadership in the daily practices of NCSs as they create positions for themselves helps us move away from a narrative of (historic) powerlessness of nurses toward an understanding of the power that nurses do have in their daily work (D'Antonio et al., 2010). Such leadership moments can be discovered by relating to and engaging in these practices, also scholarly, and by using (multiple) methods that enable both researchers and practitioners to narrate their experiences. In this study, we—most specifically—rely on the so-called learning history method to make this happen.

3 | METHODS

The *learning history method* is a form of participatory research originally developed to stimulate organizational learning (Roth & Kleiner, 1995). It combines theories of learning, in which the integration of reflection and action is central, with theories of social construction, which stress the importance of history to create organizational awareness, learning, and action (Bradbury & Mainemelis, 2001). Its participatory nature allows us to not only describe participants' practices but to stimulate change and movement. We use a learning history method to get close to the lived experiences, and in this case, leadership moments, in which "real" people initiate events that can be seen as "acts of empowerment." We worked closely together with practitioners, "inside researchers", to "capture and convey the experiences and understanding of a group of people who have expanded their capabilities" (Bradbury & Mainemelis, 2001). Its design recognizes what insiders mostly take for granted by incorporating multiple perspectives from all organizational layers and by adding an outsider's perspective (Bradbury & Mainemelis, 2001). Furthermore, the learning history method stimulates reflections upon earlier experiences as well as (newly) shared futures (Lyman & Moore, 2018). This helps us to put leadership moments in a temporal perspective: the leadership

moments in the everyday work of NCSs, situated in the "here and now," can be related to the particular histories from which they emerged.

3.1 | Study setting and participants

This Learning History is part of a national government-funded research program called Registered Nurses to Blend (RN2Blend), which investigates and accompanies differentiated nursing practice in the Netherlands (Lalleman et al., 2020). This particular study was conducted in a Dutch general hospital (1245 beds) with emphasis on the work and position of NCSs (February 2021 to July 2021). The hospital employed seven NCSs with a master's degree in nursing science or health science, who combined direct patient care with nursing research. The NCS was expected to excel (1) as a nurse leader; (2) as an "academic nurse" using her clinical expertise in combination with the newest scientific knowledge to improve healthcare; (3) as a researcher, initiating and guiding qualitative and quantitative research projects; (4) as a knowledge broker, developing educational programs and sharing knowledge; and (5) as an innovator of change, patient safety, and efficiency. This job was created in 2019 and the NCSs were in the midst of creating a role for themselves. Furthermore, two NCSs fulfilled a central role (research and policy) in the hospital's academy. The hospital, keen on embedding and expanding nursing science, asked us to work together with the NCSs and the hospital's academy to help formulate the next step(s) that they could take toward a stronger position for nursing science.

3.2 | Data collection

Data were collected over a period of 6 months (February to July 2021) using multiple data-gathering methods. The different methods enabled both the researchers and the participants, in various ways, to narrate and reflect on their experiences around events that showed "acts of empowerment" of NCSs. The data consisted of the following.

3.2.1 | Documents

An archival document analysis of the history of nursing science in the Netherlands was conducted by a historian who was part of the research team. The documents collected and analyzed consisted of nursing and nursing science periodicals published between 1975 and 1996. Periodicals are especially well suited to capture contemporary professional debates within nursing (McGann, 1998). A total of 43 articles that reflected such debates on nursing science were selected, analyzed, and then summarized in one text. This helped us to describe and understand how the leadership moments were related to particular histories of nursing science. History informs us how actual practices and moments are (now) experienced and enacted. This is not merely a scholarly background analysis; historical events are fed into the narrative encounters between practitioners and researchers.

3.2.2 | Shadowing

The first author shadowed nine NCSs for a total period of 50 h. Shadowing is useful to unveil (organizational) practices—such as leadership—that are difficult to capture in words (McDonald, 2005). By following the participants around "like a shadow," with the opportunity to ask questions for clarification, a description of the participants' world "from the inside" becomes visible (McDonald, 2005; Oldenhof, 2017). This brought us close to the everyday work practices of NCSs in which leadership moments emerged and became visible. Due to COVID-19 restrictions, however, shadowing took place online via Microsoft (MS) Teams. This diminished the chances of talking to NCSs in between meetings and prevented the researcher from getting to know the NCSs' physical environment. Also, it made it impossible to follow them around the nursing ward. Observations, however, were fed into the narrative encounters as well. Interviews and focus groups were used for data triangulation.

3.2.3 | Interviews

Two members of the research team (D. M. and P. L.) conducted 27 open interviews from an interpretive perspective (Langley & Meziani, 2020). Participants were invited to share their opinions, troubles, hopes, and thoughts on nursing science in their hospital. The interviews were conducted online via MS Teams and transcribed verbatim. Participants included nurses, (middle) managers, heads of hospital departments, doctors, policymakers, a board member, and an HR professional. They were selected using purposeful sampling, either on recommendation from inside researchers or based on encounters while shadowing.

3.2.4 | Focus groups

NCSs in a hybrid or centrally appointed role participated in two focus groups (120 min each). Four NCSs who (had been) centrally employed by the hospital's academy participated in the first focus group. Three of them started in 2019 with the specific aim of putting nursing science on the map. The participants were invited to reflect upon the actions that they undertook, the difficulties that they had encountered, and the differences that they made since the start. This provided us with insights into the (recent) past and helped us to better understand current leadership practices as events that were not just significant in the here and now but were shaped by past events. The second focus group consisted of six NCSs in a hybrid role. Using the elicitation technique called *complaints—and jubilation wall* (Klaag-en jubelmuur) (Evers, 2015), we invited them to enlist

challenging and positive aspects of their roles—again, the "difficulties and differences"—on a virtual "wall" and took these aspects as the starting point of the focus group. They shared the difficulties that they encountered and the differences that they made in their daily work practices. This helped us to better understand their daily work practices and provided us with more understanding of how they gave meaning to "acts of empowerment."

3.2.5 | Podcast

A podcast series of five 30-min episodes was recorded after a first analysis of the data. In Each episode, an NCS and two other members of the organization were invited to reflect on different themes such as nursing science's history, the value of nursing science, the double role that the NCSs fulfilled, and the future of nursing science. By placing participants with different backgrounds together at the podcast table, we learned more about the context in which the NCSs worked and whether and how they worked together to empower nursing science. As such, it alerted us to leadership moments, that is, the events or series of events that embodied these acts of empowerment. Each episode was hosted by a member of the research team. The podcast was part of the learning history method and functioned as a "vehicle through which change can spread" (Roth & Bradbury, 2013, p. 358).

3.3 | Data analysis

Throughout the research process, we used interpretive description (Thorne, 2013). The data were analyzed in two stages: a first thematic analysis in collaboration with participants and a second more theoretically informed analysis on the leadership practices of the NCSs. First, we aimed to answer the hospitals' question on how to further strengthen nursing science in close collaboration with practitioners. This analysis took place in May and June of 2021. A selection of people from inside and outside the hospital was invited to participate in a full-day data analysis session. Anonymized transcripts of the interviews were divided among half the participants of the session 2 weeks beforehand. They were asked to read the transcripts. During the session, they shared their findings and associations. The other participants were invited to react. Then, themes were chosen that were found to be important by all members of the analysis session. The themes were (1) the history of a new nursing role, (2) nursing science as essential to good-quality care, (3) crossing boundaries and role development, and (4), the future of nursing science. It falls beyond the scope of this paper to go into details of the results of this process. However, a written learning history (Martini, Schalkwijk, Smid, et al., 2021) and a thematic podcast series (Martini, Schalkwijk, & Lalleman, 2021) of five episodes were created, in which different hospital professionals came together to discuss the future of nursing science. In the learning history, we recommended expanding nursing science to more departments, as well as creating research lines in cooperation with physicians and allied health professionals. Furthermore, we advised them to invest in seniority. Finally, we acknowledged that change takes time. The NCSs should get the opportunity to grow in their role.

In the second stage (October 2022 to January 2023), we revisited the data, focusing specifically on *leadership moments* (cf. Ladkin, 2020). The authors of this paper (D. M. and P. L.) reanalyzed the interview transcripts and written fieldnotes plus the recorded podcast session (Lundström & Lundström, 2021) in search of leadership moments. With this focus, we could clarify *what* NCSs did to improve nursing science, *with whom*, and in *what contexts*. We discussed and compared our findings and selected three leadership moments, that is, three series of concrete events that exemplified how NCSs worked on strengthening nursing science. By involving the participants from the hospital in the first stage of analysis and by then shifting our focus to leadership moments, we placed our study in current nursing debates and made a contribution to strengthening nursing science, nursing leadership, and nursing leadership research. As such, we moved "beyond theming" (Thorne, 2020) to gain richer insights from our data from which the nursing field can benefit.

4 | FINDINGS

Our analysis revealed three series of events that NCSs (un) consciously used to improve nursing science. We see them as critical acts of empowerment that really "do something" to and with the professional roles of the NCSs: First, the act of becoming visible, second, of building networks, and third, of getting wired in. Below, we present and illustrate these three key moments; we also show how emergent leadership was informed by earlier events (i.e., history).

4.1 | Becoming visible

Part of the daily work of NCSs consisted of activities to make nursing science more visible in the hospital so that people would understand what it entailed and how the hospital could benefit from it. By becoming more visible, they tried to improve the position of nursing science. One of them described it as follows: *You have to prove yourself a little to everyone. To the department manager, the medical specialists, to my nursing colleagues. You have to show them what you do, and what that means*. This first leadership moment showed an NCS working on becoming more visible. We analyzed how leadership emerged in this particular context, in a series of events.

> During our fieldwork, one of the NCSs told us she was often not invited to meetings where nursing science was on the agenda. Instead, nursing science was represented by a senior manager from the hospital's academy. The NCS expressed that she would rather represent nursing science herself because she was the

> expert. It frustrated her that no matter how hard she tried to attend these meetings, nothing changed. This was a recurring point of reflection during the meetings she had with the research team.

NCSs often indicated to us that becoming visible was "an important part of their work" because, as one of them said, *We know what nursing entails, and if we translate this to what physicians and managers need, we mostly are understood and positively regarded*. However, in this series of events, becoming visible was difficult because the NCS was kept away from meetings by a senior manager. The senior manager, who had no nursing or medical background, explained his reason for attending meetings alone: *I want to protect the NCSs from the negativity that still exists in the hospital regarding nursing science, especially from doctors who, in my opinion, feel threatened*. By keeping the NCS away from meetings, he placed himself in the lead, leaving the NCS to follow. This senior manager had already successfully initiated a nursing council and a nursing training program in the hospital and spoke of building a strong nursing science program as his *next project*. Although both the manager and the NCS shared the same purpose, improving the position of nursing science (they both expressed this multiple times, and it was the reason they invited us to their hospital), in this instance, they were not in agreement over how to achieve this.

A few weeks later, the NCS contacted the research team again about an upcoming press release on nursing science.

> In the press release only a board member and the senior manager of the academy were to be quoted. The NCS wanted a NCS to be quoted but felt that she would not be able to get this message across based on similar attempts to become more visible in the past. She and the research team decided that the external senior researcher (PL) would contact the communication officer about the importance of NCSs themselves being quoted because this would help them in becoming visible. They came to an agreement: A NCS was quoted instead of the manager.

Here, leadership emerged as the NCS made a member of the research team part of her attempts to become more visible. At this point, the researcher became an active member of this leadership moment. The presence of the research team meant a change in the context of the daily work practices of the NCS. She used their presence to become more visible.

Next, we see how the NCS takes the lead in becoming visible:

> A few weeks later, close to the podcast launch, an announcement for the podcast series prepared by the communication officer was accompanied by a picture of the academy's two senior male managers. In the podcast, the "visibility" of the NCSs was discussed. In this particular episode, all parties agreed that NCSs should take, and be given, more space to show their worth. This time the NCS contacted the communication officer herself. She felt backed up by the central message of the podcast: obtaining more visibility, and felt she could use this to change the announcement. Soon after, a new picture was taken of herself and a board member to accompany the article.

In this event, the NCS herself took the lead in becoming visible. The podcast episode on visibility helped her to convince the communication officer to change the picture.

All in all, this leadership moment consisted of three consecutive events in which the NCS, the senior manager, the research team, and the communication officer played important roles. By focusing on a series of events in which the NCS worked on becoming visible, we illustrated how leadership emerged and changed over a period of time in the daily practices of this NCS. Also, it shows how the NCS became empowered as she used the changes in her work context to get her own point across.

4.2 | Building networks

NCSs built networks, inside and outside the hospital. A centrally appointed NCS called it an essential part of the work of NCSs: *Building a network is a competency that every NCS should have. I expect that from all of them*. Building networks consisted of, for example, taking part in national nursing science groups, participating in the preparation of a national job profile for NCSs, consulting the hospital's Chief Nursing Information Officer on a research project, or approaching the medical department head to discuss how they could work together with the department physicians. One NCS mentioned that she reached out to others just to get to know them and make sure they knew her. *When someone new sends out an email introducing him or herself, I invite them to have coffee. Just to get to know the person and learn about each other's work*.

In this second key moment, leadership emerged when an NCS built a new network around a research project on the improvement of patients' (digital) health skills. She participated in a research masterclass designed by the hospital to promote and stimulate research. It focused on research methods, setting up a research project, funding applications, and collaboration with others.

> The NCS was matched with a coach. Someone experienced in research and funding applications. She helped the NCS find her research focus and attract funding for her project. The NCS contacted a professor of nursing science to be connected to the research project and lobbied for letters of approval from the hospitals' client council, the national Chief Nursing Information Officers network, the national nursing association, and Pharos, a Dutch center of expertise in diminishing health differences in the Netherlands. She reached out to several universities

(of applied sciences) in the area and together with them wrote an application for a research grant.

Leadership emerged as the NCS worked together with others to set up her research project and attract funding both inside and outside the hospital. She started to build a new (research)network centered around improving patients' (digital) health skills. She mentioned that participating in the masterclass, and being matched with her coach, who had experience in this field, had been of great help.

Besides setting up a large research project with outside funding, the NCS also initiated a smaller research project in the hospital for which she received guidance in the masterclass. This project was aimed at changing the preparation process of patients who received an abdominal stoma. The NCS told us

> "When we started this project, all general information was given orally by a specialized nurse, and there was no time to get familiar with actual stoma care. Now, after elaborate literature research, we have changed this. All information has been digitalized in educational clips, animation, and text so that patients can choose only the information that applies to them. After this, patients get an appointment, and the specialized nurse addresses all questions that a patient might have. But in this appointment, the patient starts practicing. Literally applying a stoma-sticker on their belly, and then removing it with wet gauze." The NCS worked closely together with the specialized nurses to help them change their working routine. A specialized nurse we interviewed shared why she was of help; "the NCS mapped out exactly where to start, which professionals we needed to involve and how to proceed (specialized nurse)." This procedure also changed the work practices of the nurses that worked in the surgical ward. They now had to work with "their hands behind their backs" and let the patient change stoma stickers and bags right from the start.

This project showed what nursing science contributed to the improvement of patient care. It focused on the daily practices of nurses and stayed close to the patient as "a whole person." It tailored to the needs of individual patients by rearranging the way information was given. Changing the work routines of the specialized nurses and the nurses at the surgical ward led to more time for patients to learn how to care for themselves after they received their stoma. The specialized nurse in the interview mentioned that she appreciated the specific knowledge that the NCS had on how and with whom to organize changes. She focused on the usefulness of the network of the NCS that she herself did not have access to. The importance of functioning as a bridge between the daily work of nurses and others also came to the fore in other interviews, for example, when a middle manager stated: *one of the qualities of our NCS is to bring together people from all different disciplines who are involved in a topic that needs improvement, and together discuss how to proceed.*

It was the first time that NCSs participated in the masterclass, which had originally been designed for physicians with a doctorate degree. A manager of the hospital's academy explained that it took some effort to convince the academy's head physicians to admit NCSs because, as he stated, *physicians believe that nurses aren't as good at conducting research as they are.* In the masterclass, the NCS accessed a research network that had only been available to physicians. She presented the project on stoma care often to different people in the hospital and it yielded positive results. Among others, it inspired a senior medical specialist to incorporate patient education into her own research project. The NCS stayed close to her professional knowledge, that of nursing, instead of copying biomedical approaches or research methodologies. The project became an example to which participants we interviewed referred when they explained why, in their opinion, nursing science complemented biomedical science.

In this key moment, we saw leadership emerge in new networks, in which improving patient care by using insights from nursing science became the shared purpose. When the NCS participated in the masterclass, she not only gained access to an existing research network in the hospital but also built new networks around her own research by connecting with others both inside and outside the hospital. It seemed that she evaded the discussion of being as good or less good at research than physicians by staying close to nursing practice and by focusing on why her work mattered. Also, her research helped physicians and managers who were proponents of nursing science to explain this to others. During our shadowing period, the application process for a new masterclass began.

> Three NCSs applied for a position in the masterclass. They were turned down on the premises that the level of the masterclass was "too high" for them. There were many applications and only people with a doctorate degree were selected, preferably with numerous scientific publications. There were no NCSs that met these qualifications, only physicians. After a confrontation with a senior manager from the academy, a NCS was admitted to the program. One of the physicians in charge of admission later stated in an interview that he realized that "it might take ten years before they would have a NCS qualified to enter the program with the current selection criteria." They had decided that a little "positive discrimination" was necessary to give NCSs a head start over the 150 physicians in the hospital that already had a doctorate degree.

Even though the NCS accepted into the masterclass the previous year had yielded good results, the physicians in charge did not plan to repeat this because they adhered to other selection criteria, criteria

that much more physicians than nurses met because historically, the biomedical research infrastructure evolved much quicker than that of nursing science and there had been more possibilities for physicians to proceed with careers in science than for nurses. The NCSs who prepared for the masterclass application discussed how they could best present themselves because they did not meet all the application criteria. *We have to emphasize that we don't want to join the masterclass to advance ourselves. Instead, we have to emphasize why our participation in the masterclass is important for the hospital and patient care*. Thinking about how to position themselves was a recurrent point that we observed. "Networking" and telling others what nursing science added to patient care and the hospital department was their answer. This need for NCSs to prove why their work was important and complementary to biomedical science is better understood in relation to the historic establishment of biomedical science as being best able to generate objective and reliable knowledge. This made physicians "better" able to conduct research and their research topics more valuable. Nursing science became undervalued in the biomedical research world. However, this NCS showed how in her daily work she bypassed these historic differences to create a strong basis for nursing science in her hospital.

4.3 | Getting wired in

This final key moment shows how an NCS worked together with different people in her network to get a project to her department that would benefit patient care. It describes how she understood what was going on in "the organization" around her and how she related to others in order to be "included." She got "wired in," that is, she became part of organizing processes.

> In the weekly NCS meetings, the project lead of a national healthcare improvement program called "Zorgevaluatie en Gepast Gebruik (ZEGG)" "Evaluation and Appropriate use of Care" shared what the program entailed. It aimed to optimize patient care and targeted those healthcare services that were ineffective. The project lead was looking for three departments to participate in the program. The program committee consisted of medical, management, and financial members. A NCS remarked it might be good if one of them participated in the program committee. According to the program lead that wasn't necessary. Nurses had their own separate program within ZEGG, the "Choosing Wisely List" (Verkerk et al., 2018). The NCS indicated that it was imperative that they would be involved from an early stage; "The movement we want to create as NCSs is to work together with physicians, especially in the improvement of care in programs like these." She invited the program lead to her department because it would probably be interested in the program.

The NCS did two things that showed that she felt wired in. First, she spoke on behalf of the NCSs: *The movement we want to create as NCSs*. Second, she spoke on behalf of her department when she invited the program lead. She took the lead in getting NCSs involved in ZEGG. A week later, the NCS had a meeting with her middle manager to inform her about the ZEGG program.

> The NCS asked her middle manager permission to investigate which of the items on the "Choosing Wisely List" applied to their department. The middle manager agreed and said she would contact the department manager and inform him they wanted to be involved in the program. "Otherwise, they will want to change all kinds of things that have direct consequences for our (nurses') work, without us being involved." It turned out the department manager had already agreed to a meeting with the project lead. He then invited the NCS to join.

The NCS had been correct in assuming that her department would be interested. Also, it showed how the NCS and the middle manager worked together on being involved in the program because it would probably affect the daily work of nurses. By contacting the departmental manager, they became included. Three weeks later, the meeting with the program committee took place online, in which three members of the program committee, the department manager, and two head physicians of the department participated.

> The NCS had prepared for the meeting with one of her nursing colleagues. The aspects of care that might be organized more efficiently in the department were discussed. At some point, a member of the program committee asked if care could be organized more patient-friendly and efficiently by reducing the number of different internists that a patient encountered when visiting the hospital. This hardly ever happened according to the physicians. The NCS disagreed. In her experience as a nurse, elderly patients that already had difficulties visiting the hospitals' out-patient clinic saw different internists. The department manager nodded vigorously as a sign that he shared her concern. The physicians replied that finding out if this was the case might be quite complicated, but the NCS and her colleague had already looked into this and knew how to check if their assumptions were true. This resulted in many participants of the meeting, including the physicians, giving a thumbs-up.

In the first meeting with the program lead, the NCS spoke on behalf of NCSs as a group, and then on behalf of her department, to get involved in the ZEGG program. In the last meeting, she emphasized the fact that she was a nurse—*In my experience as a nurse*—to ensure that a topic that she knew was problematic for her patients would get attention. The way she emphasized different

aspects of her work or role to get others involved in the improvement of patient care indicated that she understood what was going on around her and how to relate to others; she was empowered. As she became wired in, she felt that she could influence.

5 | DISCUSSION

In this study, we used the concept of *leadership moments* to understand how leadership emerged in the everyday work practices of NCSs combining clinical practice and research (Ladkin, 2020). These moments can be understood as events that symbolize "acts of empowerment." Approaching leadership as moments allowed us to recognize leadership in the actions of NCSs as they showed agency, set directions, took positions, or got things moving. Leadership emerged as newly appointed NCSs worked on *becoming visible*, *building networks*, and *getting wired in*. By placing our findings in historical contexts we show how histories of nursing science play a part in the daily work of NCSs as they become empowered. Also, we show how in their daily practices, they create their own (hi)stories of empowerment.

Increasingly, the nursing leadership field pays attention to how contextual factors might influence leadership practices and their effectiveness (Cummings et al., 2021). Calls are made for research into actual interactions at organizational levels (Lega et al., 2017). This study focuses on such interactions at multiple organizational levels by locating leadership in the midst of the daily practices of NCSs, embedded in "specific situations and circumstances" (De Kok et al., 2022, p. 7). However, our analysis illustrates that leadership and context do not just influence each other; leadership cannot exist outside of the context from which it emerges (also, e.g., Carroll et al., 2015; Ladkin, 2020). As such, approaching leadership as moments merits a place alongside other leadership approaches in nursing, as its focus on leadership practices, instead of on leadership from an individualistic perspective, helps to better understand leadership in the daily practices of nurses.

By locating leadership in the everyday practices of NCSs, we offer an alternative to most contemporary nursing (science) leadership literature, which focuses on specific leadership styles of individuals and their competencies and capabilities (Hutchinson & Jackson, 2013). This individual focus relates the responsibility to strengthen nursing science mainly to individual NCSs themselves. In this study, however, we showed how NCSs constantly related to and worked with others when they tried to strengthen nursing science. Leadership is not an individual but a *relational* practice. Collaborating with others is key to successfully achieving change (e.g., Verhoeven et al., 2022).

The learning history method stimulates reflection on organizational history in order to achieve change (Roth & Kleiner, 1995). Relating current acts of empowerment of the NCSs to particular histories of nursing as a science helped participants, and us as researchers, to better understand the current position of nursing science as the result of historical actions (Bradbury & Mainemelis, 2001). As such, we were better able to grasp leadership as a sociohistorical practice. This alerted us to the specific acts of empowerment that the NCSs employed to create a better position for nursing science. Furthermore, the learning history helped us to not only lay bare leadership or empowerment but to also initiate and stimulate these practices. The creation of the learning history as a joint process with practitioners helped them to reflect on their roles, their past, and their future. The design of the learning history method facilitates the creation of a (hi)story of empowerment of the NCSs and as such moves away from the dominant paradigm of understanding the history of nursing as only that of relative powerlessness (D'Antonio et al., 2010, p. 207).

5.1 | Strengths and limitations

This study used consolidated criteria for creating a learning history (Roth & Kleiner, 1995). The combination of document analysis, observations, interviews, focus groups, and a podcast recording led to multilayered insights into the leadership practices and relations of nurse scientists that would not have been reached otherwise. Insights from shadowing and document analysis fueled interviews and focus groups, and vice versa. Furthermore, the learning history became an act of empowerment in itself, as it helped NCSs create a movement toward a better position for nursing science in their hospital. Nevertheless, there are some limitations. Due to COVID-19 restrictions, it was not possible to shadow the NCSs in clinical practice. Although interviews and focus groups were used for data triangulation, further research into the leadership practices of NCSs in the nursing ward is necessary.

Furthermore, using the concept of leadership moments gave us the opportunity to detach leadership from individuals and focus on leadership in everyday practices instead. However, this confronted us with "the disappearance of leadership" as we tried to define it (Alvesson & Sveningsson, 2003). We operationalized leadership moments as "events that can be perceived as acts of empowerment." However, we did not explicitly include the NCSs' perspectives. This could have added further insights into their perception of leadership.

Finally, all NCSs in this study had been in their roles for 2 years or shorter. While this provided us with insights into "acts of empowerment" in setting up nursing science in their hospital, more longitudinal research on how they further develop in their roles is recommended to get a better grip on leadership moments and how they evolve over time.

5.2 | Research implications and recommendations

Approaching leadership as moments has both academic and practical implications. Academically, acknowledging leadership as a relational and sociohistorical practice means that objectifying leadership and measuring it in individuals outside of context is not sufficient to fully comprehend it (Carroll et al., 2008). Instead,

a focus on "acts of empowerment" that contribute to the strengthening of the nursing profession in specific contexts is necessary to learn about the actual "doings" of leadership. Because of dynamic work contexts of nurse (scientist)s, there are many different opportunities for leadership to arise. Investigating and exemplifying this can sensitize nurse (scientist)s to the many situations in which they can exert influence (Ladkin & Probert, 2021). Research designs that allow researchers to get close to the actual practices in which leadership becomes emergent, like the learning history method (Roth & Kleiner, 1995), can be employed more to investigate nursing leadership practices.

More practically, the results of this study cannot be copied one on one to other settings. However, they provide the nursing field with some *best principles* to improve nursing leadership. First, nursing professionals seeking to improve (the position of) nursing are advised to do so on the basis of their professional knowledge. Explaining what nursing science is and means, as well as showing why it is important and complementary to that of biomedical science, can "lift" the daily work of NCSs in both research and clinical practice. The NCSs can gain authority on the merits of their particular nursing knowledge (Thorne, 2016).

Second, nursing professionals can improve their positions by working together with others, both within and outside the nursing profession, toward shared goals. Instead of merely focusing on what nurses themselves should do to achieve change, focusing on finding out which people they need "on their side" might be more beneficial (see also Verhoeven et al., 2022). NCSs did not work alone to achieve change. They built networks and made sure that they became wired in so that others supported NCSs' repositioning. This enlarges opportunities to improve healthcare.

6 | CONCLUSION

Within a transforming healthcare landscape, nurses are expected to show leadership to guide change. In this process, the nursing profession changes too as it tries to further develop and position itself within the healthcare field. Among other things, nursing science is advanced and strengthened, and new roles for NCSs—combining clinical practice and research—are created. This study shows how NCSs were empowered by working on becoming visible, building networks, and getting wired in. When they stayed close to the nursing profession, they distinguished themselves from (bio)medical researchers and physicians. At certain key moments, nursing science regained its complementary position to (bio)medical science. When nurses want to contribute to transformations in/of healthcare, this study shows that it is necessary to work with transformed notions of nursing leadership.

ACKNOWLEDGMENTS

We would like to thank RN2Blend and all participants of this study for their time and effort in working with us to create the learning history. The work was supported by the Dutch Ministry of Health, Welfare, and Sports.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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How to cite this article: Martini, D., Noordegraaf, M., Schoonhoven, L., & Lalleman, P. (2023). Leadership moments: Understanding nurse clinician-scientists' leadership as embedded sociohistorical practices. *Nursing Inquiry*, e12580. https://doi.org/10.1111/nin.12580