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MANUSCRIPT

How Do Nurses and Physicians Engage in Professional and Managerial Work? A Study of Distributed Leadership in Primary Care Centers in Sweden

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Abstract
The article aims to understand how changes in nurses' and physician's daily work create opportunities for distributed leadership outside formal managerial positions. The paper demonstrates ways in which nurses and physicians are engaged in distributed leadership locally at primary care centers. The study involves in-depth interviews with nurses, physicians, and managers at Primary Care centers in Sweden. The study uncovers three basic mechanisms through which nurses and physicians engage in distributed leadership. The study shows how the two groups differ in how they are able to draw benefits from engaging in distributed leadership.

Keywords Distributed leadership · Nurses · Physicians · Professional work · Managerial work · Primary care centers

Introduction and Theoretical Framework

The healthcare system in Sweden has been subject to frequent waves of changes over the last three decades, which has created new conditions for healthcare professionals such as nurses and physicians (Bridges & Meyer, 2007). These changes have been prominent in Swedish primary care and a marked step was taken in 2010 when primary care was opened for private providers to compete for patients (Andersson et al., 2021; Maun et al., 2013). Single Primary Care Centers, PCC´s, faced a new situation where they had to pay more attention to managing the center and deliver high-quality care to keep patients signed up. Furthermore, quality models have affected nurses'

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and physicians work to pursue patients' needs (Eriksson, 2017), where standardization with focus on processes in healthcare activities had a transformative effect (Wadmann et al., 2019). New management models have given the healthcare system a more pronounced focus on resources and efficiency (Karlsson, 2017), compared to professionals' traditional focus on the medical work (Kippist & Fitzgerald, 2009). Previous research in a healthcare context has described how these changes affect the healthcare professionals (Liff & Andersson, 2021). Research has shown that they now have a broader palette of work tasks (Martínez-González et al., 2014), as well as more advanced tasks (Maier & Aiken, 2016). In addition to the changes in traditional medical work of nurses and physicians, they also engage in leadership at the PCC, often without being in formal management positions (Eriksson & Müllern, 2017).

Leadership, in this sense, becomes a 'property shared by multiple individuals' (Leach et al., 2021:354) and 'an important aspect of the daily tasks and interactions of all employees in a company or institution' (Günzel-Jensen, et al., 2018:112). This characterization is commonly referred to as distributed leadership (Currie & Lockett, 2011; Gronn, 2002; Harris, 2013), a theoretical perspective that challenges the simplistic view that leadership is exercised primarily by managers.

Distributed leadership is a theoretical view on leadership that has gained acceptance in a healthcare context (Leach et al., 2021; Martin et al., 2015), driven by recent trends of organizing in teams (Chreim & MacNaughton, 2016), patient involvement and quality improvement (Boak et al., 2015), and a growing critique of hierarchic and leader-centered models of leadership (Leach et al., 2021). Healthcare provides a complex arena for leadership, where professionals often face dynamic situations that require immediate action and local authority (Klein et al., 2006). Distributed leadership is based on the growing recognition that leadership is an inherently social process (Günzel-Jensen et al., 2018), that needs to be understood in its context (Currie & Lockett, 2011; Fitzgerald et al., 2013; Raelin, 2016). The extant literature on distributed leadership has, however, neglected the impact of professional relations and differences on the acceptance and distribution of leadership. In this article we highlight the importance of understanding the two major professions in the medical field—nurses and physicians—and how their changing relations shape the conditions for distributed leadership. We, in particular, demonstrate how a number of mechanisms structure the ways nurses and physicians engage in distributed leadership.

Based on the work of Gronn (2002) and Spillane (2005), we conceptualize distributed leadership as a form of leadership that goes beyond hierarchically defined leadership positions. It emphasizes that leadership is spread among various individuals in a collaborative way, which corresponds to Gronn's (2002) concept of concertive action. Furthermore, leadership acts are synchronized among individuals in ways that create a sense of group membership and aligns leadership action across individuals (Currie & Lockett, 2011). Distributed leadership pays special attention to the interactions between people, essentially defining it as a social process rather than a specific role, competence or style (Spillane, 2005). We acknowledge the importance of this interactive process, by highlighting the relations between nurses and physicians and how they shape distributed leadership.

Research has shown how nurses and physicians, as professional groups, are changing and that these changes do not happen in isolation (Abbott, 1988). Nurses

constitute the largest professional group in healthcare and here they will be compared to physicians, their interdependence making it hard to understand changes for one of them without understanding the other (Lui et al., 2015). Comparing the two professions can yield important insights on how the social processes that constitute distributed leadership have changed, creating new opportunities for and processes of leadership for the two groups. Alvehus and Andersson (2018) describe how changes within professional groups have to consider simultaneous changes in other groups. When leadership tasks for physicians are changing (Andersson, 2015; Maier & Aiken, 2016), this will probably both restrict and enable changes simultaneously for nurses. However, we have insufficient knowledge about the interrelations between nurses and physicians and how this influences the distribution of leadership outside formal managerial positions. Healthcare is a context where professional groups are working close and professional hierarchies and differences can impact the processes of distributing leadership, in both positive and negative ways (Currie & Lockett, 2011).

In addition, there is a growing appreciation of collaboration between professional groups as an important aspect of delivering coordinated care (Sourial et al., 2022), as well as advancing quality in healthcare (Wei et al., 2022). Engaging in interprofessional collaboration arguably increase the interrelated character of nurses and physicians work and can potentially change the dynamics between the two groups in leadership tasks. Gronn (2002) describes how collaboration that appear spontaneously can be an important part of individuals working together to influence organizational outcomes. Abbott (1988) represent the traditional view that professional groups compete with each other to maintain their influence over areas where they have expertise, but Anteby et al. (2016) argue that focusing exclusively on competitive relationships disregards how professionals build collaborative relations with each other.

In this paper, the theory of distributed leadership is used as a lens to understand how nurses and physicians engage in leadership in the local context of PCCs. We hypothesize that the changes happening in the areas of both medical as well as more administrative work, including the increased interprofessional collaboration, create new patterns and opportunities for both groups to exercise leadership. Thorpe et al., (2011:241) describe, in their introduction to a special issue on distributed leadership, how leadership is manifested and 'stretched over people and situations'. It is in the nitty–gritty of ordinary activities at the workplace that individuals are given/create opportunities to exercise leadership.

The present study provides an analysis of nurses and physicians at a selection of PCCs in Sweden, and it gives detailed descriptions of the leadership they exercise outside formal managerial positions. The article aims to understand how changes in nurses' and physician's daily work create opportunities for more distributed forms of leadership outside formal managerial positions. The paper demonstrates ways in which nurses and physicians are engaged in distributed leadership locally at the PCC's. The paper thereby gives a contribution to the emerging literature on distributed leadership in a healthcare context.

Method

An in-depth interview study was conducted with 21 clinical nurses, 15 clinical physicians, and seven managers at four PCCs from different cities in Sweden, 2018—2020. To fulfill the aim, a qualitative research strategy with a thematic analysis (Braun & Clarke, 2013) was chosen. That enabled analysis of the collected data in relation to the aim of the research and to stay close to how the interviewees expressed themselves and their subjective views (cf. Silverman, 2015).

The ambition was to conduct an in-depth study at a small number of PCCs, to get variation in the type of center. In Sweden, close to 40 percent of all PCCs are privately owned, and we decided to include two private and two public PCCs. The reason why both private and public PCC were included in the study was to reflect nurses' and physicians´ involvement at PCC in general and reflect the new PCC landscape in Sweden. Since the study aimed to describe patterns of how nurses and physicians, in relation to each other, engaged in distributed leadership, it was arguably important to obtain a rich understanding for the local context at each PCC. In the sampling process, the researcher's team asked the senior manager at each center to book a majority of the nurses and physicians in order to create representativity at the level of the PCC. It was also decided to include interviews with formal managers at the center, to provide additional contextual information that was deemed important. See Table 1 for details of the sampling.

The study was based on semi-structured interviews covering areas connected to its purpose. The interview guide covered aspects such as roles at the workplace (their own and others), description of work tasks and responsibilities and authority related to these, contextual information concerning the workplace, formal structure, and roles and function of the working group. Questions also covered aspects connected to how the managerial work at the PCC was organized, involvement in managerial work (their own and others), formal or informal roles, balance between managerial work and medical work, and what would make them more involved in the PCC managerial work.

The study was approved by the Ethical Review Authority (Event No. STYA-2017/0003). All interviewees also gave informed consent to participate in the study. Interviews lasted between 40 and 95 min and were transcribed verbatim to facilitate data analysis.

Table 1 Overview of the sampling for the interview study

PPCs and ownership	Interviews with nurses	Interviews with physicians	Interviews with managers	Total No. of interviews
A. Private	6	4	1	11
B. Public	4	4	1	9
C. Private	3	2	2	7
D. Public	8	5	3	16
Total	**21**	**15**	**7**	**43**

Data Analysis

The analysis began with multiple readings of interview transcriptions, with data simultaneously sorted based on how the nurses and physicians described their daily work situation, and how they described their involvement in leadership tasks. We followed Braun and Clarke's (2013) seven-step model for thematic analysis, which involved transcription, reading and familiarization, coding, searching for themes, reviewing themes, defining and naming themes, and finalizing the analysis. Throughout the coding process, great care was taken to keep a strong focus on the study's purpose and to ensure all relevant parts of the interview transcripts were considered.

Both public and private PCCs were involved to reflect Swedish PCC and whether forms of ownership produced different results in the professionals' descriptions of their work and engagement in leadership at the PCC. However, the analysis showed that this was not the case, which resulted in the interviewees' statements being analyzed together within the various occupational groups overall. The coding process is summarized in Table 2.

The six themes are listed below, and in the following section each of the themes is described thoroughly:

- Collaboration across professional boundaries
- Transfer of responsibilities from physicians to nurses for existing tasks
- Nurses new work conditioned by physicians
- Managerial work without formally being a manager
- Improvement work as career booster
- Influence decision-making at PCCs

Table 2 Thematic analysis according to Braun and Clarke (2013)

Phase	Steps	Actions
Initial phase	Transcribing, reading, and familiarization	All interviews were transcribed to facilitate a thematic data analysis. The transcripts were read and re-read through an iterative process. The researcher's team had numerous workshops to discuss how to analyze and interpret the data, to reach a common opinion. In direct relation to the interviews each researcher shared impressions from the interview with the rest of the team, to add to the contextual understanding
Coding phase	Coding, searching for themes, reviewing themes	In the next phase, an initial coding was done, and a number of preliminary themes were identified. This phase was performed using the software NVivo12. Through a pattern-based search in the data, several themes were identified connected to the two types of work (professional and managerial). Special attention was given to how nurses and physicians related to each other and how this influenced how they engaged in leadership
Thematization phase	Defining and naming themes, Finalizing themes	In the last phase the initial themes were further refined and the processes ended with the naming and description of six themes

Results

For each theme, the work of nurses and physicians is described and differences between the two groups are highlighted. For each theme the two groups engagement in leadership at the PCC is highlighted. This section is followed by a discussion part where the theory of distributed leadership is applied to reflect upon the themes generated in this section.

Theme 1: Collaboration Across Professional Boundaries

Nurses and physicians described a change over time towards more collaboration, creating a more balanced professional relation. Over time, PCCs has taken over work tasks from hospitals and these extended tasks had required more collaboration especially in teams. Despite differing educational backgrounds, they felt it was possible to handle the medical work in new ways when they worked together. Through the collaborative teamwork, physicians and nurses got to know patients in different ways, which broadened their professional work.

> Here [in one PCC; our remark] you feel more like a working team, doctors, nurses, and assistant nurses. At the hospital, nurses and assistant nurses' work together whereas doctors work by themselves. It was different than here. (Nurse, No. 4)

Physicians discussed their collaboration as sharing information and as a solution to a heavy workload:

> Then it is great to discuss with the nurses; they often know the patients in a different way than doctors and it provides a lot of information. (Physician, No. 14)

> We have to change our way of working all the time because we see that there is increased pressure on us and we cannot work in the same way all the time. It does not work. Then we run out of ourselves. So, we must find solutions all the time to accommodate those who get in touch. (Physician, No. 8)

Previously, the dominant attitude of physicians towards the nursing profession made it difficult for nurses to suggest solutions to patient problems and make their voices heard. The status difference between them gave physicians the interpretive precedence, decision-making, and power regarding medical and caring activities. These differences have changed gradually. Nurses perceived that they now had better opportunities to discuss and suggest medical treatments in communication with physicians:

> I have excellent contact with doctors in the medical team. I think it depends on the hierarchy decreasing through my work with time booking for patients. I am no longer hesitant to knock on the doctors' door. (Nurse, No. 2)

The medical work is now characterized by openness to develop work tasks. Some of the interviewed expressed an openness to new solutions regarding how to manage their medical work. It was not only about the working tasks they expressed this openness, but also about the free and easy communication.

> There is a huge openness between us nurses and the doctors when we talk to each other about how to manage the patients. (Nurse, No. 2)

> Here it is more "yes, but we try this" and I think it's very good. It is a big advantage. And just this with having a mix of doctors and nurses, it is appreciated. Then you can sit and talk directly. You can solve a lot of questions by just talking to each other. (Physician, No. 14)

In sum, collaboration within teams and good communication increased nurses' medical work, through physicians transfer of work tasks to nurses. This theme focused on the increased collaboration between the two groups, and how this had changed the ways in which the two groups interacted. It was clear that the nurses saw new opportunities to develop work tasks, especially in the medical area. They were also able to influence decision-making concerning treatments in dialogue with the physicians. For the physicians this was an opportunity to reduce a heavy workload, by letting the nurses be part of the discussions on treatments. What emerged was a local leadership that was exercised in collaboration between nurses and physicians.

Theme 2: Transfer of Responsibilities from Physicians to Nurses for Existing Work Tasks

Nurses had significantly more opportunities to make changes in their medical work than before, and to engage in work with responsibility delegated by physicians. In nurse-led medical receptions, it was mainly when there were deviations from the physician's care plans that a physician became involved. Some PCCs had a physician appointed as advisor to both nurses and physicians, and nurses took a lot of responsibility since physicians supported them and could thereby take care of the patients themselves.

> I am responsible when the patient comes to me; I assess whether all values as blood pressure and blood tests are good or if I have to make any adjustment. If the values have deteriorated, then it is my responsibility to contact a doctor, but the test results go to me, I am responsible for signing them. (Nurse, No. 6)

Physicians described this as a line of demarcation between nurses and physician's responsibilities, and now the line has moved to give the nurses a broader area of responsibility, although the final authority still rests with the physicians:

> Here [at the PCC] you see all professions as important. Making reception work for not-too-seriously ill patients, you have chosen to let the nurse have the main role today. In the case of certain types of diagnoses, the doctor is a consultant.

> That means that their nurses suddenly have a very important role to take care of that patient group. And it is known that receptions run by nurses work really well. (Physicians, No. 14)

This theme clearly showed how the nurses' areas of responsibility had been growing as physicians handed over tasks to them. This was especially evident when the nurses got the authority to organize and lead the work in medical receptions, and within those they were able to exercise considerable leadership. This responsibility, coupled with authority for nurses was created in mutual understanding between nurses and physicians.

Theme 3: Nurses' New Work Tasks are Conditioned by Physicians

PCCs in Sweden have been subject to many changes, some of which have had a direct impact on the medical work of both nurses and physicians. One particular change highlighted in this theme was the introduction of emergency receptions at PCCs. Nurses now played a prominent role as "gatekeepers" at the emergency receptions. In the new PCC landscape, a certain part of easier emergency problems was located at PCCs.

> I am at the emergency reception here and take care of emergency patients. I make it easier for the doctors who had this work task before. First, I meet them and do some examinations and then I assess whether they need a doctor's visit or I take care of the healthcare visit myself. (Nurse, No. 11).

> The work is very much about a discussion between doctors and nurses; for example, when you are in the emergency reception, then it is the nurses who have had conversations with the patients and then assessed how urgent it is. (Physician, No. 14)

It is important to highlight that the physicians had an important say when it comes to the new tasks for the nurses.

> The nurse makes an initial assessment and decide if it is more complicated than the nurse herself can take care of. High access and good prioritizations, that is the only way to make it medically safe. And there, the physicians can influence, and be part in the managing. (Physician, No. 14)

Theme 3 was closely connected to the discussion in theme 2, where it was highlighted how nurses' areas of responsibility and authority was growing, and in particular at the medical receptions. This process was here viewed from the perspective of the physicians that keep a balance between empowering nurses and staying in control, they kept a final say in the work of nurses for the new tasks. This conditioning of the nurse's responsibility and authority showed that they exercised a substantial amount of leadership locally.

Theme 4: Managerial Work Without Formally Being a Manager

The interviews contained numerous examples of nurses who participated in managerial work. This meant benefits for them concerning how work could be organized in PCC. Nurses solved different problems together with physicians, which is arguably a form of managerial work. Nurses had more opportunities to choose and develop what they perceived as best solutions to handle a specific task, together with physicians. Nurses did most of the managerial work, were interested in managerial work and willing to take on this responsibility.

> Managerial work is knowing what to do and what will happen in the future and then you can better structure the professionals' work in PCC and be in phase with the planning. (Nurse, No. 6)

When physicians discussed managerial work, they perceived it as something good that had happened in terms of how they earlier took on managerial work.

> Earlier, it was more traditional to have either a team of nurses or a team of doctors. So, it's now an absolute improvement, and a good thing to have with you, that you can change quite a lot. (Physician, No. 14)

Physicians became involved in managerial work through the opportunity to give advice and remarks to nurses who had managerial tasks, but also to nurses who were managers. They were not interested in performing managerial work themselves. Physicians could influence and get control of the managerial work through advice to nurse managers ensured that managerial work was performed their way.

> I can honestly say that I have never been at a PCC where the employees have been as involved in the management processes as here. We are helping the manager with administrative issues and management issues. (Physician, No. 10)

In sum, nurses were involved to some extent in the performance of managerial work and saw this work as a way to influence the development at PCC. Physicians did not want to become managers, but influence and control how managerial work was carried out. Both nurses and physicians agreed that there was a high degree of involvement in managing processes at the PCCs, for instance in terms of planning and structuring work locally. The nurses engaged in leadership, for instance by being involved in both solving problems and deciding upon courses of action in the medical work. The physicians took a different role in exercising leadership, partly by retaining a sense of control over the work of nurses, and also in the capacity of influencing by giving advice and being a speaking partner to nurses.

Theme 5: Improvement Work as a Career Booster

A prominent trend in Swedish healthcare in the last decade has been to implement systems of improvement work. That as a part of managerial work was perceived as

an advantage for nurses' ability to develop and plan their own and others' work. The nurses saw this involvement as an important way of increasing their influence.

> I am very interested in planning and thinking about improvement. It is perhaps a prerequisite that you think this is enjoying. (Nurse, No. 6)

Physicians did not want to become involved in improvement work in the same way as the nurses. That gave nurses an opportunity to expand their possibilities to engage in improvement work.

> Organization and development are definitely many times better managed by nurses than doctors. Not a doctor as a person, but a doctor as a function. (Physicians, No. 14)

Nurses found it interesting when the desired improvement work could be implemented in practice, and it showed their skills in planning and initiating improvement work.

> There is improvement work all the time, I know that. But sometimes it's just the right time and the right place to development. (Nurse, No. 36)

Some of the physicians pointed out the importance of change coming at the right time in order to have a good impact and that the workload enabled development.

> I think it must be the right balance in the workload. If you want to be able to think of something else as development, the workload must be okay. (Physician, No. 10)

In sum, both nurses and physicians were interested in improvement work, but in different ways. Nurses adopting to such work became a career booster for them. Physicians hand over the improvement work to the nurses but wanted to be involved in issues regarding change in the medical work. Improvement work gives both groups opportunities to exercise a local leadership, primarily in the sense of developing the ways work was carried out.

Theme 6: Influencing Decision-Making at PCCs

Managers at PCC requested nurses' suggestions regarding how the work should be performed in the qualitatively best way. Nurses conveyed a sense that they were being listened to when they came up with ideas and suggestions that make the job better. Their possibilities to give proposals affected changes that actually later became decided and influence the managers' decisions. It is important to acknowledge that the opportunity that nurses have is centered around certain areas where their expertise is asked for.

> The manager constantly wants us to come up with proposals for changes. It's huge. (Nurse, No. 36)

Physicians appreciated nurses as managers and had confidence in them. However, they argued that they could still influence the situation greatly.

> We can be involved and influence a lot. It is not the case that you have an operation manager who says that "you should do as I want". It is so open that everyone can think, and everyone can say what they want and have the opportunity to influence. (Physician, No. 10)

The last of the six themes focused on how nurses and physicians influenced managers at the PCC and in that way exercised a leadership by directly or indirectly affecting decision-making at the PCC. This typically took the form of open discussions involving managers and nurses/physicians (and other occupational groups). This pattern was especially salient when nurses became managers, and they sought advice both from nurses and physicians.

In Table 3 the six themes are summarized and the patterns for each of the two groups are highlighted in the two right-hand columns.

Discussion

The thematic analysis above showed how nurses and physicians were in a process of redefining their professional roles and the relations between them. It further showed how entangled the two groups were and how they were mutually dependent on each

Table 3 Outcome of the thematic analysis for nurses and physicians

Themes	Nurses in managerial work	Physicians in managerial work
Collaboration across professional boundaries	Collaboration and communication with physicians provide opportunities for professional development	Collaboration with nurses free's time for physicians to focus on advanced medical tasks
Transfer of responsibilities from physicians to nurses for existing tasks	Increased possibilities for nurses to make changes in professional work	Give advice and establish guidelines for nurses' medical receptions
Nurses new work conditioned by physicians	Developed work task closely connected to the areas of responsibility of physicians	New patient groups transferred from hospital services to PCCs. Possibility to focus on advanced medical tasks
Managerial work without formally being a manager	Involvement in managerial work has increased	Confidence in nurses as managers but influence how managerial work shall be carried out
Improvement work as career booster	Improvement work gives nurses more opportunity in performing managerial tasks	Hand over improvement work to nurses. Improvement work must balance the workload
Influence decision-making at PCCs	Suggestion on change ideas and get it decided by manager	Influence on decisions through support and advice to manager

other. We now move on to reflect upon the six themes based on the theoretical lens of distributed leadership.

The view on distributed leadership put forward by Gronn (2002), Spillane (2005) and others, emphasized the interaction between individuals as the core of leadership. The six themes above showed that nurses and physicians related to each other in numerous ways which shaped how leadership was exercised in a distributed fashion. This is consistent with the results from The Distributed Leadership Study (Spillane, 2006), that individual's leadership actions were reciprocally interdependent. Our findings showed how nurses and physicians developed ways to act independently (for instance with nurses being given new areas of responsibility) and at the same time being interdependent (in the sense of being defined in relation to each group and thus reflecting their relations).

How did the patterns revealed in the six themes contribute and shape the distributed leadership? Based on the idea of concertive action (Gronn, 2002), we saw a redefinition of relations and tasks where the two groups were engaged to shape new conditions. This can be viewed as a process of institutionalizing practices where new patterns emerged that shaped the conditions for distributed leadership. Unfortunately, previous research on distributed leadership did not explore these processes of institutionalizing new practices in depth. Based on the six themes we were, however, able to identify and substantiate various ways in which this occurred, contributing to the development of distributed leadership theory. The themes illustrate three principal mechanisms through which distributed leadership occurred: *collaboration* between nurses and physicians; *transfer* of tasks from physicians to nurses; and through *expansion* of tasks.

Collaboration over professional boundaries was something many of the interviewees discussed, and it was viewed as positive both by nurses and physicians. Theme 1 showed how both nurses and physicians could benefit from increased collaboration between them. It primarily increased the opportunities for nurses to engage in more managerial work. The work in teams together with physicians (and other professions) enabled them to engage in a 'micro-managing' of important activities (such as planning the work at the unit) and to achieve a higher degree of coordination between different professional groups (see Gronn, 2002). Collaboration was also clearly visible in theme 6 where the nurses were able to influence decision-making at the PCC by suggesting changes. The nurses showed a higher degree of perceived agency (see Günzel-Jensen et al., 2018) through the opportunity to participate in discussion and therefore being able to influence decision-making. Collaboration was also important for the physicians, and it allowed them to keep and even strengthen their local influence. Collaboration with nurses had a clear benefit – it enabled them to focus more on advanced medical work (theme 1). In theme 6 we also saw that the physicians exercised leadership by giving advice and support to managers (that typically belonged to other professional groups than physicians). This created a form of professional/managerial hybrid (see Fitzgerald et al., 2013) that helped the physicians to keep a strong position at the PCC.

The second mechanism, transfer of tasks from physicians to nurses, shifted responsibilities and some authority from one group to another, from physicians to nurses.

This mechanism was clearly visible in theme 2, where responsibility for certain medical tasks were shifted over to the nurses, which allowed for the physicians to both free time for more advanced medical tasks as well as keeping a sense of control over tasks. This illustrated the importance of a clear role distribution (see Chreim & MacNaughton, 2016) when there was overlap in responsibilities, and transferring tasks to nurses was an example of that. The empowerment of nurses (Andersson et al., 2022), and the conditioned process to achieve this was also visible in theme 3 which further emphasized the role and power of physicians to shape their work tasks to allow for more advanced medical work.

The third mechanism, expansion of tasks, was different from the other two by also introducing/adding new tasks. In both theme 4 and 5 we saw how the nurses took an active interest in managerial work, where possible. Quality improvement work was one arena where nurses could exercise leadership (theme 5), but there was also a broader increase in managerial work primarily for the nurses (see theme 4). In our sample the physicians were in general sympathetic to nurses taking on managerial tasks, but they often had the final say in how managerial work should be carried out (which can be interpreted as one of their ways to exercised leadership).

The three mechanisms created an interesting hybrid version of distributed leadership, where the two professional groups did not exhibit the kind of equal stand envisioned by the purer forms of distributed leadership, for instance in the dialogue-based model proposed by Raelin (2016) or the collective leadership model presented by Leach et al. (2021). The process can rather be viewed as calculated and careful steps towards a more equal stand between the two groups, but with the physicians still clearly in control.

The three mechanisms discussed above all shared one common denominator – there was a *mutual benefit* for both nurses and physicians. This created a powerful mechanism that made it worthwhile for both groups to continue the processes of redefining their relations and engagement in various tasks. As long as there were mutual benefits for nurses as well as physicians there were good conditions for distributed leadership. In all six themes above it was clearly so that both parties benefited from the processes of growing and redefining the various work tasks. In some of the themes the nurses were in a process of taking over tasks from physicians, which was a process acknowledged by the physicians and where they also gained something from it.

Although this study did not contain a longitudinal design there were still indications of interesting changes for both groups in professional as well as managerial work. Numerous previous studies have confirmed that there has been a clear professionalization of the nursing profession (Lui et al., 2015) and the trajectory of these changes for nurses' points to a combination of taking on more advanced medical tasks and doing managerial work. The trajectory for the physicians were not as clear-cut and the changes were subtler. While it was clear that physicians often stayed away from managerial work, they also developed strategies for keeping control.

Conclusions

In conclusion this study has shown that distributed leadership was connected to the ways in which nurses and physicians engaged in managing the PCC outside formal positions as managers. The study demonstrated how distributed leadership was facilitated through 3 basic mechanisms, each of which gave the two professional groups opportunities to engage in distributed leadership. Firstly, through an increased level of *collaboration* between nurses and physicians, both groups got opportunities to engage in managing the PCC. Secondly, a *transfer of tasks* from physicians to nurses, gave the nurses new opportunities to exercise distributed leadership. Simultaneously, the physicians gained opportunities to focus on their preferred tasks which arguably allowed them to engage in distributed leadership. Finally, the *extension of tasks* created new opportunities for both parties to engage in distributed leadership.

For all three mechanism there were *mutual benefits* for both nurses and physicians, and this was an important prerequisite for the distributed leadership. Instead of conflict between nurses and physicians, the boundaries between them changed through mutual understanding. Through the three mechanisms, both professions became winners: nurses by getting more medical tasks that strengthened their position, and physicians by maintaining their position as advisor and support to nurses, and by being given space at work to take on more advanced medical tasks. This contrasted with Abbott's (1988) view that conflict between the two groups was prevalent in healthcare. When nurses took on new professional tasks, they also defined their position in the hierarchy by "doing" (Anteby et al., 2016). Based on Abbott's (1988) argument that tasks define the hierarchical position, nurses strengthened their position in "relation" to physicians (Anteby et al., 2016). The hierarchic position between them could still be seen, but somewhat differently than earlier. In line with Anteby et al. (2016), the present study pointed at a positive force and harmony between nurses and physicians to support each other and allowed possibility to exercise a distributed leadership.

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Declarations

Informed consent The participants in the study were informed about the purpose of the study and how data was to be used by the researchers before interviews – all participants gave their consent to participate.

Ethical approval Ethical approval for the research was granted by the Regional Ethical Council in Göteborg. Decision id: Exp. 2018–01-18, 1126–17.

Conflict of interest None.

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