Interprofessional Barriers - A study of Quality Improvement Work among Nurses and Physicians

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Abstract

This article studies interprofessional barriers between nurses and physicians, in the context of quality improvement work. A total of seventeen nurses and ten physicians were interviewed at two hospitals in Sweden. The study uncovered a number of barriers relating to both the relative status of each group and their defined areas of responsibility.

Key words

Interprofessional barriers; collaboration; quality improvement work

Introduction

Healthcare is influenced by strong cultures within different healthcare professions (primarily physicians, nurses, occupational therapists, psychologists and physiotherapists). The continued specialization within the professions has yielded astonishing medical results. Notwithstanding this, there is widespread recognition that strong professional cultures also create barriers that can hinder collaboration between professionals. A growing body of literature is problematizing the *interprofessional barriers*, for instance between the two big groups, nurses and physicians (1, 2, 3, 4, 5) whereby collaboration between the professional groups becomes more challenging which can then jeopardize high quality patient care (6). Powell and Davies (7) show the importance of addressing strategies to minimize the impact of professional barriers on patient care.

Research supports the idea that professional groups, such as nurses and physicians, need to collaborate over professional barriers (8, 9, 10, 11). This is certainly true when it comes to quality improvement work (QIW), which often transcends single professional groups (12, 13). The call for increased interprofessional collaboration in QIW is challenged by existing patterns relating to the groups of nurses and physicians. QIW is not the responsibility of one single profession, per se, but it is rather a joint effort, and this aspect makes it interesting in terms of understanding how different professions can work together in improvement work. QIW is an iterative process designed to make changes within the health care delivery system, to provide patients with high-quality care that meets both their expectations and needs (14, 15).

Krogstad et al (16) show that nurses and physicians view interprofessional collaboration differently, hence subcultural diversity is an issue that needs to be dealt with in

improvement work. Their relations have been described as different worlds (17), competing logics (18), different cultures (2, 16), different professional identities (19, 20) and professional boundaries (4, 7). The bottom line of most of the extant research is that there are factors that hinder effective collaboration between the professional groups, and that important parts of this relate to how they *view* themselves and other professional groups.

The concept of interprofessional barriers highlights the often taken-for-granted assumptions about ones' own profession and other professions that can hinder collaboration. In a study of knowledge mobilization in healthcare, Currie and White (21) claim that social structures present barriers to effective knowledge brokering. Their study focuses in particular on the barriers between the medical professions on the one hand and managers on the other hand. In this study the focus is more on the barriers that emerge *between* different professional groups, such as nurses and physicians.

Interprofessional barriers can be "barriers such as sex and class differences, hierarchical organizational structures in healthcare, and physicians' belief that they are the final arbiter of clinical decisions" (5 p470). The barriers emerge over time and are constantly in a process of change and development, and it is acknowledged that differences in professional roles have the "potential to challenge the monopoly of all healthcare professions" (4 p914). The physicians' medical profession attained its dominance in healthcare long ago (22). University training, among other factors, created a powerful political voice for the profession, placing medicine in a strategic position (23). In recent years nursing has emerged as a field in its own right and nurses have, with their extended university training, developed a considerably stronger and clearer professional identity (24). Research suggests that professionals act as guardians of their own profession (25), and also try to expand the realm and power of their own group (26, 27). Dixon-Woods et al (28) uncovered a number of barriers when implementing QIW. They pointed out the challenges encountered when trying to convince people that there is a problem with their way of working and then that the chosen solution is the right one.

The interprofessional barriers between nurses and physicians are socially constructed in the sense of being created through processes of sensemaking and enactment, leading to institutionalized understandings of the two professional groups (29). It is a common perception that nurses and physicians form strong professional cultures (30), but less is known about the specific processes of institutionalization and how they are formed at the group level and how they create barriers between nurses and physicians. Karlsson et al (31) showed the physicians' views of how nurses shape the relationship between the two groups. The two groups also express views about themselves. Nurses are clearly in a process of expanding their authority and this influences how they talk about and perceive themselves as a group (32).

Previous research has uncovered a number of aspects of the process of construction/re-construction of barriers, but more research is needed to understand what happens when these two groups collaborate. It is also important to know if and how these barriers have an impact on improvement work. Thus the research for this article is done in the context of QIW collaboration between professionals. The barriers between them become visible when they describe the collaboration within their own group and with the other group during improvement work.

The purpose of this article is to delineate and analyze how interprofessional barriers between nurses and physicians become visible when they describe themselves and the other group, as well as how each group constructs and re-constructs the interprofessional barriers. Expressing views about themselves and the other professional group is viewed here as being part of an ongoing process of construction and reconstruction of interprofessional barriers. The data consists of interviews with nurses and physicians that were actively involved in QIW in the hospitals. The interviewees reflected on both the role of their own professional group, and that of the other professional group.

Method

A qualitative method was used whereby the data collection consisted of in-depth semi-structured interviews with nurses and physicians (33). The interviews were open-ended and followed a template with questions that asked them to reflect upon themselves and the other group and how they work together towards improvement in their everyday practices (34). This provided the research team with the narrative material to uncover barriers between the two professional groups. The research was guided by hermeneutics and interpretative philosophy, where the respondents' subjectivity and being-in-the-world was central (35, 36)

Research design

The research was conducted at two hospitals in the western part of Sweden. Data consisted of interviews with nurses and physicians working in the clinical practices, some of whom had leadership assignments. In both hospitals the manager had previously selected areas for change in the professionals' everyday practices. These areas were selected as suitable for the introduction of business-inspired quality improvement methods among process teams, which created good opportunities for the nurses and physicians to describe how they view themselves and how they relate to each other.

Study participants

Study 1 was conducted in a hospital internal medical clinic, and an obstetric and pediatric clinic where seven nurses and six physicians were interviewed. Study 2 was conducted at a hospital orthopedic clinic, and an internal medical clinic where ten nurses and four physicians were interviewed. A total of seventeen nurses and ten physicians were interviewed during 2010-2014, with all of them working in the clinical practices.

Data collection

The director and senior quality control managers of both hospitals suggested departments to study were the personnel had initiated quality improvement work. Nurses and physicians were contacted by telephone or email and the purpose of the study was explained. The individual respondents' anonymity was guaranteed as well as the hospitals' anonymity. Everyone agreed to be interviewed. The interviews lasted between 45 minutes and 1 1/2 hours. The interviews were transcribed verbatim and analyzed to find underlying themes describing how nurses and physicians convey images of their own professional group and how they talk about and describe the other group.

Data analysis

Following the principles of interpretation in hermeneutics, the transcribed interviews were coded in themes in an iterative discursive process. A basic principle of hermeneutical analysis is the interplay between parts and whole (35). Gradually, through discussions among the research group, themes emerged (whole) that fit the individual comments

(quotation) of the interviewees (part). The themes were further elaborated by going back and forth between the themes and single text units.

In the first analytical steps the interviews were read and any text unit that was considered relevant for the purpose of the analysis (explicit description of themselves and/or the other group) was marked. This step collected a substantial number of text units. The second analytical step consisted of reading and discussing the text units from each group to look for possible themes giving both transparent and interesting interpretations on how they view themselves and the other group (37). The emerging themes were substantiated by going back to each quotation to make sure the theme was justified based on the context of the quotation. Once again, the hermeneutical going back and forth between parts and whole was central in this analytical step.

The third step consisted of writing the empirical findings and thereby formulating each theme in a coherent and meaningful way. Special care was taken to make sure each theme was analytically distinct, with the ambition to present a clear interpretation. At the same time care was taken to make sure each theme represented the majority of the respondents in terms of relevance and importance.

Findings

Healthcare in Sweden is almost completely publicly funded through taxes, and the healthcare is typically done in publicly owned hospitals, healthcare centers and other units, although recent reforms have paved the way for privately owned units. Both the studied hospitals are publicly owned and are typical middle sized hospitals with emergency care, internal medicine, surgical care, well-woman and pediatric care, and other clinics. Public sectors in Sweden have been inspired by the Post New Public Management movement, as in many other countries, and have tried to find and develop more collaborative models to provide better value and higher quality in healthcare organizations. QIW is a set of techniques that has become popular in Sweden and the two hospitals in this study both worked actively with them. Efforts were made at the two hospitals to implement Lean production principles in the clinical practices, a method where the professionals can examine what is necessary for good care, only use necessary caring activities in the care chain (processes) and avoid repetition of activities. The interviewed nurses and physicians also incorporated QIW in their day-to-day clinical engagements.

Nurses reflections of themselves and of the physicians

The nurses in the study conveyed an ambiguous view of their own profession and their relations with the physicians. Three themes were identified in the interviews, which are described in detail below.

THEME 1: *Nursing - a profession in transition.* It is clear from the interviews that the nurses are now in a process of raising the status of their profession. This is evident from how they talk about themselves, for instance by highlighting the competence of specialist nurses and the raised status that comes with a longer university training. They often take the opportunity of comparing themselves with the physicians, using their knowledge and experience to argue for a more equal status in carefully selected areas. The delegated *medical responsibility* is an important marker of nurse status. As a nurse said:

"A specialist nurse can be more qualified on a specific diagnosis than a physician."

Their medical responsibility is often framed in the context of being subordinates to the physicians. It is clear to the nurses that physicians have the final say in this part of improvement work.

It is also clear that engaging in quality improvement work can be important for nurses, as they often get leading administrative roles. In methods such as process-oriented work and Lean, they show strong engagement in improvement work. The nurses describe themselves as taking active part in managing the department or clinic, and this is done together with physicians. As a nurse said:

"We as nurses are often assigned managerial tasks in our departments".

Regarding the management work, they think of themselves as being equals with the physicians. This is partly connected to the idea that administration is an element in defining the nurse's territory. When nurses get *managerial responsibilities* they can control things like budget and personnel planning.

Theme no 1 clearly indicates a barrier between the two groups that is visible in the *medical responsibility*, but it also surface in the area of QIW. The nurses in the sample are, on the one hand, eager to raise their status arguing that their longer education and their managerial responsibilities put them more on par with the physicians. On the other hand there is always an element of subordination that counterbalances the call for raised status.

THEME 2*: Nurses - a subordinate profession to physicians.* Even though the nurses often take the opportunity of arguing for their own profession, equating themselves more with that of the physicians', they are clearly ambivalent about this. They see that they have important roles in quality improvement work, but at the same time this is often limited by *the established hierarchy*. One nurse expressed this as a distinction between being able to influence but not to being able to decide.

"We can, as nurses, influence the improvement work but not decide what needs to be done. We can drive change and improvement and be a boss- though not in an authoritarian sense."

There is a clear demarcation between being involved and being able to influence and decide. This becomes even clearer when the nurses describe the physicians: physicians form a strong profession guided by a natural science/medical perspective. Even if the nurses try to argue for a more equal status, it is clear that their relations with physicians are marked by a large degree of *respect for physicians*. The nurses stress that physicians have a sense of professional strength and describe them as scientifically trained. Healthcare personnel must have a good basis if they want to question anything about the physicians' work or decisions. Physicians do the important tasks and leave the rest to nurses and others. One of the nurses even said in terms of improvement work:

"The physician's word becomes law."

The role of the physicians in improvement work is also noted by the nurses. It is generally acknowledged by the nurses that it is important *for physicians to be involved* in improvement

work. If the physicians are negative it will most likely stop any improvement effort. As one of the nurses said:

> "Without physicians' participation, we cannot make big changes."

It is clear that the nurses view authority, and especially the medical responsibility, as something that is connected to the physicians. It becomes much harder, if not impossible, to run improvement work if a formally responsible (in a medical sense) physician is not involved. The nurses repeatedly reenact the subordination with subtle formulations. One nurse, for instance, expressed the team had "our doctor" involved in the improvement work. When doctors are not present in improvement work there is a high risk that it will lose both tempo and legitimacy.

Theme no 2 indicates that the subordination of nurses to physicians is a barrier that is visible in the manner nurses talk about the QIW. Having physicians involved in the improvement work becomes an important factor to succeed. Subordination is also subtly visible as a barrier when the nurses talk about the physicians more generally.

THEME 3*: Coordination - the heart of the nurse profession*. There is an overarching theme when the nurses describe their professional group. Nurses talk about themselves as a *coordinator* for all patient treatment and care. They coordinate everything around the patients, as well as other personnel's activities, and talk about themselves as a spider in the web. This coordinating is one of their responsibilities, and in that sense they manage a lot of administrative work for the department. As one of the nurses said:

> "Nurses have administrative responsibility for everything in the department."

Several nurses discuss the need to have continuity in patients' care and point out nurses are very important, especially considering the statement that physicians have a lot to do in more than one department per day. The physicians do their specific tasks in a department and then go on to other duties elsewhere, leaving the nurses to run the day-to-day business. The nurses and physicians often tell stories about the "chaos" that can occur when a nurse is not present. These successes in cooperation were also described as one of the reasons the medical tasks, and coordination of some medical issues, have been increasingly delegated to nurses.

Theme no 3 indicates that the coordination theme can be interpreted as a strengthening of the nurse profession, in the sense of giving them an area of responsibility. It, however, still emphasizes the basic barrier of the medical responsibility resting with the physicians. The coordination is defined in relation to the medical responsibility which is handed over on rare occasions to the nurses, but this is starting to happen more often.

Physicians' reflections, of themselves and of the nurses

The physicians' (in the sample) image of themselves and of the nurses is marked by their perception of their own profession and their relations to the nurses. Three themes have been identified in the interviews and each of them is described in detail below.

THEME 4: *Self-reflection - physicians are important but find it hard to become enthusiastic about improvement work*. There is an element of critical self-reflection among the physicians where they acknowledge it is important for their group to be active in, and positive to, quality

improvement work. Some of the physicians see themselves as a guarantee for the functioning of the interprofessional teams. One physician said:

> "Most of the initiatives come from the doctors."

The interviewees among the physicians are well aware that their group is *often resistant to improvement work*. There seems to be a generation gap where the younger physicians are considerably more positive towards improvement work compared to older and more senior physicians. At the same time the physicians stress that they have *important roles in improvement work*, for instance by taking initiatives for improvements.

When the physicians describe the nurses' roles in improvement work, a mixed picture emerges. They see improvement work as an arena where nurses are very active but often claim that many of the improvement initiatives come from themselves rather than nurses. They describe the nurses as being responsible for staffing and the logistics within the departments yet they are dependent on the physicians' medical knowledge and expertise. A physician said:

> "The nurses' developments are not revolutionary, but occur in small steps."

Theme no 3 makes it clear that the physicians view the nurses involvement in quality improvement work as important. There are, however, barriers that surface when the physicians reflect upon this involvement. They are aware that they, themselves, are sometimes resistant to improvement work, which is an effective barrier to making it work. They also see themselves as a guarantee for the functioning of the team based improvement work, which thickens the barrier further between the two groups.

THEME 5*: Responsibility for the patient defines the physicians' view of themselves*. On asking the physicians about the core of their professional identity, they tended to define themselves as being *responsible for the patient*. Central to the physicians' identity construct is the responsibility that comes from their medical training, and it is manifested for instance in the role as responsible for patients. This responsibility should not be confused with the nurses' responsibility for the patient. Whereas the nurse's responsibility is defined in relation to the physicians, making sure everything is coordinated, the physician's responsibility is defined in its own right. When the physicians say they are responsible for the patients, it means that they take the final and important medical decisions about patients. As one physician put it:

> "The doctor is responsible for the patients which means the team has to function, think and prioritize in a correct way."

They carefully protect their own responsibility pertaining to medical decisions and initiatives. Following on from this *careful protection of the medical responsibility* is a thorough dislike for administration, which is perceived as taking time away from patients. When they reflect upon their role in an interprofessional team it is clear to the physicians that their medical training gives them a special role.

Theme 5 deepens the previous reflections in the sense of arguing for the unbroken responsibility for the patient, which serves as a clear barrier in relation to the nurses. The different types of responsibilities resting with the nurses, for example coordination, are always evaluated in relation to this overarching responsibility for the patients.

THEME 6: *Competing - natural for physicians*. The physicians' *competitive approach* to each other is discussed by several respondents. They describe themselves as working in a solitary manner, and this gives them autonomy. On the one hand the physicians discussed that their medical responsibility is unquestioned by other staff. They make their own medical decisions, and this fosters a sense of protecting the boundaries of their own field of specialization. Physicians said their *legitimacy comes from curing the patients* which most of them claim depends on their own high standards of work. Some of them discussed why they have this competing attitude to their colleagues but nobody had an answer. As one physician put it:

> "Now we must learn to collaborate more than before – we unfortunately are better at competing. We have to ask ourselves what is the best for our patient".

However, there was a discussion among the group of physicians concerning the need to have consensus about how to treat patients with different diagnoses. This consensus seemed first and foremost to be important for the younger physicians. The senior physicians took it more or less for granted that younger physicians looked up to them as an example. Yet now, the senior physicians considered following the nurses' example regarding their natural team collaboration. There seemed to be a growing realization among the senior physicians that *treating patients is a team effort*. Some of the interviewees problematized this and saw it as an old idea whereby each doctor worked for him/herself and hoped it would change over time.

Theme no 6 describes the competitive approach, with a responsibility that is also defined by the specific medical specialization, that further strengthens the barrier presented in theme no 5. This competitive approach is fostered by the autonomy resting with the physicians to make decisions concerning the patient. There is a growing recognition among the physicians that this is a troublesome barrier that hinders the success of improvement work.

The major elements of the six themes are summarized below in Table 1.

Table: 1 How nurses and physicians talk about themselves and the others

	Nurses account:	**Physicians account:**
Nurses	• Nurse status is increasing. • Improvement work is an important part of the profession. • Administrative responsibility. • Coordination is central to the nursing profession.	• Responsible for coordination. • Carry out the practical work but rely on doctor's medical knowledge. • Active in improvement work but with only low level of responsibilities.
Physicians	• Final say in improvement work. • Decision-making power. • Strong profession with scientific training. • Authority. • Legitimize improvement work.	• Responsible for the patients. • Medical initiatives. • Resistance to improvement and change initiatives. • Compete with each other.

The findings in table 1 are reformulated in table 2 and are presented as barriers between the two groups, filtered through the descriptions of first the nurses and then the physicians.

Table: 2 **The empirical findings interpreted as barriers**

Nurses description of barriers:	Physicians description of barriers:
• Physicians are hesitant to promote equal medical responsibility even though nurses' education is considerably longer than before. • Physicians acknowledge nurses managerial/administrative responsibility, but not within the medical area. • Physicians limit nurses' involvement in QIW, giving physicians the final say. • Decision-making power rests with the physicians. • Physicians legitimize QIW through the authority resting in their scientific training and long education.	• Physicians define the nurses' responsibility as coordinating. • Nurses are doing the practical work but they rely on our medical knowledge. • Nurses are active in QIW but only with low levels of responsibility. • Physicians have the full responsibility for patients. • Physicians take the medical initiative. • Physicians are resistant to QIW and other change initiatives. • Physicians compete with each other.

Discussion and Conclusion

Quality improvement work is discussed, but more specifically, the barriers between nurses and physicians. The picture is mixed and the possibilities of lowering the barriers between nurses and physicians are discussed and problematized. As argued in the introduction, QIW is an area where collaboration between different professional groups is both encouraged and often required. The manner of the collaboration between nurses and physicians is hampered/determined by the different barriers that were highlighted in the empirical findings.

In the findings section a thematic description was given based on how the two groups described themselves and the other group. The starting point for the analysis is the common understanding, *converging view,* that nurses and physicians are different, with a status gap founded on tradition, physicians' longer education and training. This status gap is clearly visible in the empirical material with both nurses and physicians acknowledging the difference as something both natural and necessary. Table 3 below represents the traditional view that there is a status difference between nurses and physicians, and this is an inherent part of how each group views itself and the other group.

There is, however, a different logic that sometimes surfaces especially in the nurses' view of themselves where they stress they want more responsibility. This view, though, is not shared by the physicians thus the views clearly *diverge*. The nurses feel that they are currently closing, or at least lowering, the barrier, primarily through their longer education and

training. This view is challenged by the physicians who define themselves as responsible for the patients, full stop!

Table: 3 Diverging or Converging views about nurses and physicians

	Nurses and physicians are different	**Nurses and physicians are equals**
Diverging views	Not applicable	Nurses: Want to get more responsibility. Physicians: Responsible for the patients.
Converging views	Nurses are responsible for coordination and administration. Nurses collaborate with each other. Physicians make decisions and legitimate improvement work. Physicians compete with each other.	Both nurses and physicians agree that the physicians are the major source of resistance to improvement work. There is also a growing understanding among physicians that this resistance is a problem and they want to manage this.

Interestingly enough QIW seems to be an area where the established barriers between nurses and physicians can be challenged, or at least discussed. This can give the nurses an opportunity to raise the status of the group, enabling the nurses and physicians to work together with QIW on an equal status. QIW becomes an object that challenges the traditional ways the two groups work together. The converging view that the physicians are the major source of resistance to improvement work, and thereby are effective gatekeepers of the status difference between the two groups, is a possible challenge to the traditional status gap. It shows that there is a discussion among physicians, especially the younger ones that they sometimes hinder improvement work, and there is an undertone that this resistance is not always justified. This can indicate a process where the gap is gradually closing between nurses and physicians, and improvement work is a possible opening towards this approach. As long as the physicians preserve the status gap, the gap cannot close. However, the growing understanding among physicians that they are in fact resisting against improvement work creates a possible arena for discussion. The reflections of both nurses and physicians indicate that the domain of improvement work is less sensitive and it is possible to discuss ways of lowering the barriers within this area.

Teamwork improvement is not an inherent attribute in healthcare but it can be fostered, with training and role modelling as important enablers (38). The challenge is to find a solution to the professionals' traditional ways and the ensuing conflicting, ways of working (cf. 20). We believe, if improvement work is carefully managed, it can strengthen nurses' professional status in relation to physicians. This can in turn lower the professional barriers.

The nurses tend to view themselves in relation to the physicians. The knowledge and strength of the nurses' professional role needs to be linked with the knowledge of the physicians' professional role (cf. 39). This would make it considerably easier for the nurses to cross the interprofessional barriers. Even though the nursing profession is in a transition process, the relational character is still a matter of subordination. Seniority and status affect

how nurses manage conflicting situations in relation to physicians (cf. 40). The physicians, on the other hand, draw their professional identity from within their own profession. We agree with Hall (2 p194) that even if "the barriers traditionally built between the professions are high, they certainly are not insurmountable".

Further research is needed to investigate whether lowering the physicians' resistance to improvement work can be the first step in strengthening the nurses' status. In this study we have uncovered interprofessional barriers that primarily serve to uphold established status patterns between nurses and physicians. The analysis revealed strong barriers, especially within the physicians' group, that structure the relations between the two groups.

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