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Transcending boundaries for collaborative patient care

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ABSTRACT

Dutch general practitioners (GPs) and medical specialists (MSs) create collaborative patient care agreements (CPCAs) to improve intraprofessional collaboration. We set out to identify contradictions between the activity systems of primary and secondary care that could result in expansive learning and new ways of working collaboratively. We analysed nineteen semi-structured interviews using activity theory (AT) as a theoretical framework and using these two activity systems as the units of analysis. There were contradictions within and between the activity systems related, for example, to different understandings of 'care' in generalist and specialist settings. GPs and MSs were able to identify contradictions and learn expansively when they iteratively co-created CPCAs in groups. They found it much harder to tackle contradictions, however, when they disseminated these tools within their respective professional communities, leaving unresolved contradictions and missed opportunities for collaboration. This research shows the educational benefits of taking collective responsibility for improving collaborative patient care.

KEYWORDS

Patient management; continuing education; change (or change management); work-based learning

Introduction



Research into (learning processes that promote) intraprofessional collaboration (IPC) has focused primarily on post-graduate training (Meijer et al. 2016) and on the perspectives of individual practitioners (Janssen et al. 2017). In reality, however, IPC usually involves groups of professionals learning together in the context of work, making it difficult to design processes that improve their ways of working (Engeström 2006). Collaboration between general practitioners (GPs) and medical specialists (MSs) to ensure continuity of patient care is an important case in point (Uijen et al. 2012). In the Netherlands, these professional communities promote IPC by co-creating collaborative patient care agreements (CPCAs). Such 'CPCA-groups' envisage ways of working collaboratively across care boundaries. Participants then disseminate the CPCAs within their respective communities (Kroneman et al. 2016). Recognising the growing importance of informal workplace learning in the dynamic settings of modern healthcare, (Engeström 2018) we use this example to advocate for a systemic perspective on learning to collaborate.

Activity Theory (AT) is a theoretical tool that helps researchers take a systemic perspective by examining rules, communities, division of labour, and tools that mediate workplace learning (Engeström 2018). CPCAs, which are agreements between medical professionals from different disciplines working across boundaries between different organisations to meet patients' healthcare needs, are an

Practice points

- Participating in CPCA group meetings gave GPs and MSs personal benefits, such as increased pleasure in their work and opportunities to negotiate new ways of collaborative working.
- Participants must engage with difficult yet mundane issues, such as referral letters, and discuss the rationale behind specific requests of other professional groups.
- Professionals should generously challenge each other's assumptions such as interpretation of the 'right' location of care for each patient.
- External factors such as insurers' policies can hinder the development of collaborative patient care.

example of a mediating tool. These specify the role of all professionals involved in the care of specific group of patients and specify how those individuals should work together. The processes of collaboratively creating CPCAs and disseminating them bring to light contradictions within and between the activity systems of primary and secondary care (Yamagata-Lynch 2010); for example, legislation that obstructs the shared object of caring for patients. Identifying such contradictions and trying to relieve the

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tensions they cause by creating new ways of working collaboratively across boundaries ('formative interventions') create opportunities for expansive learning (Engeström and Sannino 2010).

This article provides a systemic perspective on how professionals learn IPC by using activity theory to interpret the qualitative evaluation of a formative intervention.

Methods

Research setting

This study was carried out in the Netherlands where GPs (as in many other healthcare systems) act as gatekeepers to secondary care and GPs and MSs interact daily, despite working in different settings and organisations. An exponential increase in Dutch healthcare costs over recent years has prompted a search for more cost-efficient ways of managing transitions of care from MSs to GPs.

Data collection

We conducted a qualitative multiple case-study, gathering data in interviews guided by a semi-structured topic-list. This list was derived from publications describing Change Laboratory and the construction of CPCAs as an active intervention to improve work practices (Virkkunen and Newnham 2013). Interviews explored the processes by which a new CPCA between GPs and MSs was created and disseminated. Three aspects of this process guided the design of the interviews: (1) the motive to start constructing a CPCA; (2) deciding on the topic and content of a CPCA; and (3) the actual process of constructing and implementing a CPCA.

We sampled participants from an earlier survey study (Meijer et al. 2018) purposefully to collect the perspectives of both GPs and MSs. Nineteen professionals agreed to participate: six GPs and five MSs who contributed to CPCA construction as well as five GPs and three MSs not directly involved in their construction.

Data analysis

Interviews were recorded, transcribed and anonymised. Figure 1 shows the steps taken in the analysis. Transcripts were analysed using NVIVO 12. Codes belonging to different parts of the AT-model and contradictions within and between the Activity Systems (ASs) were created during open coding and these codings were reviewed and, if necessary, revised throughout the analysis. Two researchers (GDL, LM) coded all interviews. We analysed the transcripts

from GPs and MSs separately. For each category, a triangular model was created, contradictions were identified, and these were discussed within the research group. Any disagreements were resolved between the three researchers (EdG, GDL, LM). We followed the research ethics recommendations of the Netherlands Association for Medical Education (NVMO), informing participants about the study, asking for their informed consent, and anonymising the transcripts for analysis.

Results

Activity systems

Changes in IPC that resulted from the creation and dissemination of CPCAs were characterised by two interacting, and sequential activity systems in a dynamic relationship. First, GPs and MSs worked in groups to create CPCAs (the partially shared object); second, these groups used the CPCAs as a tool to promote collaborative patient care (see Figure 2).

Activity one: Creating CPCAs in small groups

Lack of uniformity in subjects' workplace practices caused contradictions. Non-uniformity among MSs was represented by sub-specialisation and variation in treatment regimens; for example, in anticoagulation management among different MSs or in wound care where views between dermatologists and (plastic) surgeons differed on the basis of different pathologies that these specialities dealt with. Non-uniformity among GPs was represented by, for example, the different ways they structured cardiovascular disease management. Variation between the tools used by different participants to achieve the same outcomes became evident when it proved impossible to design a standardised referral form that could be used in the many different software systems used by GP practices.

Contradictions between subjects in the two systems arose from differing perceptions of each other's professions and professional values. Diverging perspectives on patients' conditions, even within the shared object of collaborative patient care, also led to contradictions. A specialist discussing 'patients with headache' tended to envision a patient with a potential brain tumour, while GPs, who saw a wider group of patients with headaches, were less preoccupied by brain tumours. Discussing different interpretations of actual patient cases in CPCA-group meetings or training sessions helped reduce unhelpful tensions surrounding these different views.

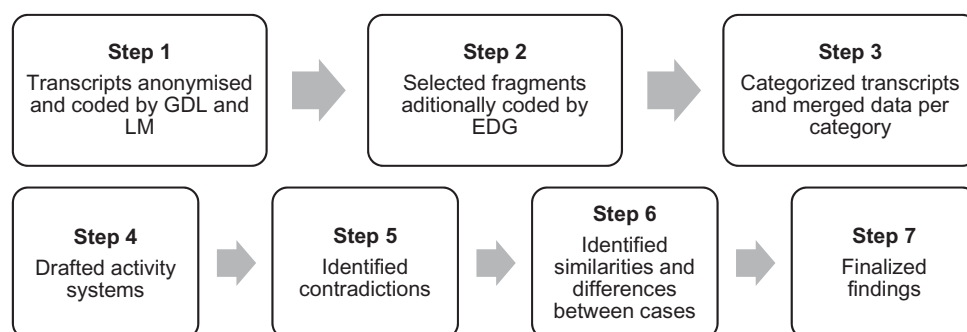


Figure 1. Steps taken in the analysis: Step 1–3 coding process, Step 4–7 activity systems analysis.

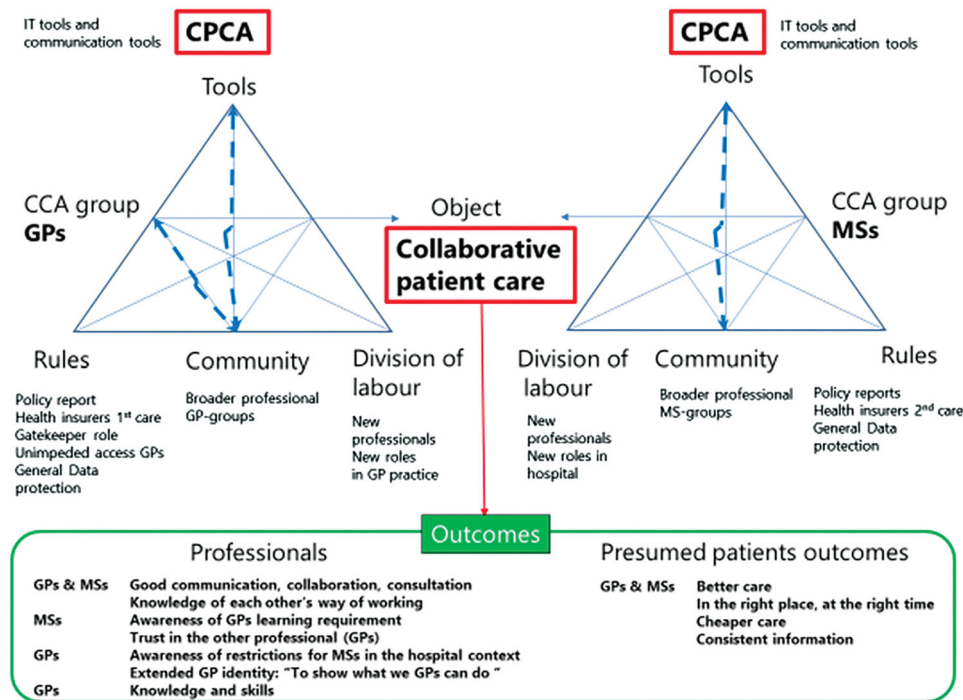


Figure 2. Heading the collaborative patient care agreement's dissemination in both communities of the GPs and MSs after the CPCA-group created this agreement. Caption: GPs: general practitioners; MSs: medical specialists; CPCA-group: collaborative patient care agreement-group; CPCA: collaborative patient care agreement; arrows in the triangles indicate contradictions.

In addition to differing perspectives on 'the patient', MSs and GPs disagreed on the 'right' location for patient care; whether this was primary or secondary care. They also had different opinions about which specialist field was most appropriate for which patient. An MS, for example, described tensions in deciding who was responsible for secondary prevention after a heart attack. Opinions about the right place for patient care resulted not just from medical considerations but also from lack of knowledge about each other's logistics and insurers' incentives.

Contradicting values came to light when GPs and MSs spoke about how to address tensions: specifically, about 'democratic' versus 'hierarchical' approaches. GPs emphasised that everybody should have their say, all views counted, and decisions should be supported by their whole team. MSs, in contrast, talked more about efficiency and effectivity. Whilst GPs were often unsure whether they could speak on behalf of their broader professional group, MSs did not share those reservations.

Professionals in both systems were motivated on the one hand to do what was best for patients, while on the other hand expressing concern about whether their work could be charged for. This balance between focusing on care or on cost of care created tensions. Some MSs telephoned GPs when they considered a referral not to be necessary while, for financial reasons, other did not. Likewise, some GPs discussed whether or not to refer to an MS at length with patients while other GPs did not discuss it at all

I do make these calls, but I know that a lot of my colleagues don't want to make them because they say, 'I've already looked at it so I've already spent time, energy and money on it, so the patient can just come for an appointment and then it'll be billable'. [MS]

Lack of knowledge about the organisation of work and division of labour in the other AS was a prominent cause

of contradictions. An example of this was MSs' poor understanding of recently established roles of nurses in out-patient clinics and GPs understanding of the roles of clinical pharmacists (Hazen et al. 2018). Participants lacked knowledge about the expertise and limitations of other professionals and about logistical processes in the other system. Some MSs had unrealistic expectations of what GPs could do in practice, whilst simultaneously underestimating the availability of point-of-care test, ultrasound, and other new diagnostic tools in GP practice. Some GPs had little knowledge of the logistical problems faced by MSs, such as lengthy waiting times for MR scans. GPs and patients had to deal with specialists' problematic practices such as discharging patients from the hospital on a Friday afternoon with inadequate continuing care arrangements. These examples of poor appreciation of the challenges faced by the differing groups suggest differing views on what was paramount; smooth operation of institutional processes or the interests of individual patients.

Different subjects had different perceptions about relationships between specialist and generalist care. MSs considered it to be essential to 'teach' GPs detailed and specialised knowledge, while GPs were generally more interested in solutions to practical issues affecting their daily work. These different perspectives influenced with whom the MSs thought they should discuss new CPCAs, preferring more specialised GPs, who were interested in more advanced patient care.

Working together in CPCA-groups helped resolve contradictions which resulted from different values and created opportunities 'to learn from each other' and to find pleasure in work. All subjects were enthusiastic about participating in the process. They said that collaborative work had either increased their medical knowledge (GPs) or their understanding of working with different types of patient groups (MS). Participants said that the most important

outcome was getting to know one another and understanding each other's daily practice. This, in turn, lowered perceived barriers to contacting and consulting the other group of professionals with a medical or patient-related question. These connections enhanced feelings of joy and pleasure in work. CPCAs clarified the division of labour in subjects' daily practice and helped them find solutions to several contradictions. The written format of CPCAs delivered information to patients better and clarified where patients should be treated. In sum, becoming clearer about their shared object as a result of CPCAs led to expansive learning. The adapted and adopted CPCA became a tool for the next phase of dissemination.

Activity two: Dissemination to the professional groups

Whilst differences in values were surmountable and tensions arising from contradictions could be lessened in CPCA-groups, disseminating change within the primary and secondary care settings respectively led to new contradictions, whose tensions were harder to lessen (see Figure 2). Participants were unsure of non-participating GPs' and MSs' support and commitment to change and found differences between their values and the values of colleagues who had not participated.

These tensions arose in meetings: an MS attended a meeting intending to discuss 'inappropriate' referral letters. However, the meeting was opened by a GP with the stated goal of 'getting to know each other', leaving the MS's issue around referral letters undiscussed. Discussing patient cases addressed the contradictions between MSs' aspirations to teach specialist knowledge and GPs' quest for practical knowledge to only a limited extent.

Changing the division of labour was an obstacle to improving IPC. Many new professional roles have been introduced in both activity systems in recent years (such as the examples of nurse practitioners and clinical pharmacists given earlier) yet these professionals were not involved in creating, disseminating, or implementing CPCAs:

But how do we reach, in time, all the others. [...] because, well, in the end, the patients come from everywhere, how do we get the other professionals to follow us in this? [...] That [it is not limited to] only a small group, who happens to be very much interested in cardiovascular risk management, for example ..., [...] Well, we are, this is just a first step, but it has to take further shape. [MS]

Many tools, such as phone calls, referral and discharge letters, and teleconsultations increased collaboration between the two activity systems. These tools, however, also caused tensions and ambiguity around the division of labour and rules of practice. Busy professionals found it hard to contact each other, especially if they worked part-time. New digital tools were not easy to adopt into everyday practice and were at odds with General Data Protection Regulations. When referring patients, professionals did not know enough about the information requirements or implementation needs of professionals across the boundary. An example of this was MSs' unawareness of difficulties caused by patients being discharged home and their discharge letter containing information about their discharge medications arriving days later.

Several external rules, such as those caused by government policies, health insurance companies, and information

and communication technologies (ICT) facilities, caused tensions between the activity systems. The health insurers and political system, for example, imposed rules that stemmed from current developments in the Dutch healthcare system, restricting specialist care and shifting work from secondary to primary care.

Right now, there is one group of representatives from the health insurance making decisions about primary care, while another group is doing the same for secondary care. Both groups have no idea what the other group is doing, which creates these artificial boundaries between primary care and the hospital.' [GP]

Rules generated contradicting financial obligations over which professionals had no direct control. These rules also affected IPC with, for example, practice nurses and pharmacists. Inability to lessen the tensions caused by these contradictions led to feelings of helplessness.

The object of the primary and secondary care activity systems was to care collaboratively for patients. This object, though, led to different outcomes for professionals and patients, particularly at the dissemination stage. CPCA-groups were able to create instruments that benefited both practitioners and patients. When disseminated into the broader professional groups, however, the desired outcomes of better-informed patients, improved and better situated care, and reduced costs of care were more aspirational than achievable.

Many tensions identified in the study proved resistant to change within specific health care communities, which hindered expansive learning and prevented the object being reconceptualised. General Data Protection Regulations, for example, limited the exchange of patient information and hampered the construction of collaborative tools. GPs, as a result, did not have the intended tools to communicate uncertainties in their daily practice to MSs and receive feedback on referrals. Additionally, health insurers' rules regulating the funding of primary and secondary care limited IPC, eroded trust between GPs and MSs, and led to several failed implementations of CPCAs.

Discussion

The iterative change process of creating and disseminating CPCAs provided opportunities to develop new means of crossing boundaries, improving collaborative patient care, and learning expansively. Working together to create CPCAs inspired practitioners and created opportunities to expand learning for IPC. The GPs who took part in CPCA-group meetings gained so called 'decision latitude' in that they had more opportunity to influence decisions and exercise control over their work (Fagerlind et al. 2013).

The dissemination of CPCAs, however, created new contradictions, tensions that were harder to resolve, and less expansive learning. The systemic perspective afforded by AT has given insight into rules, divisions of labour, and tools that positively affect change toward better IPC. It has also provided information on the design of formative interventions aiming at fostering change. It is clear, though, that disseminating formative interventions is, Engeström wrote (2006, p. 7), 'easier said than done'.

The two professional groups shared a need to discuss multi-morbid, complicated patients together to determine the best location for care at a particular moment. Despite

this, members of different professional groups found it hard to agree on what the 'right' location should be, at least partly due to insurers' rules. Different interpretations of the 'right' location remained unchallenged during their meetings. Multi-level rules, moreover, hindered the use of tools for facilitating communication between primary and secondary care.

One strength of our study was the diversity of researchers who contributed to the analysis, one of whom was a GP and had been coordinator of CPCA-group meetings for several years. An obvious limitation of the study was that we did not interview patients so patient outcomes were viewed only through medical professionals' eyes.

Conclusions

Envisioning improvements to collaborative patient care brought systemic contradictions to light. CPCA-group meetings lessened some tensions, which facilitated expansive learning. New ways of providing collaborative care resulted from this formative intervention. Participating practitioners experienced greater pleasure in their work and had more latitude to contribute to decisions. Direct contact between GPs and MSs appeared pivotal to bridging boundaries than the actual CPCA document itself. Disseminating CPCAs to the broader professional groups in primary and secondary care, however, brought contradicting rules, challenges in using the new tools, and other tensions to light. This hindered expansive learning new modes of collaboration across boundaries.

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Disclosure statement

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

Glossary

Collaborative Patient Care Agreement (CPCA): Co-created agreement between healthcare professionals (Medical Specialist as well as General Practitioners as others), working in different organisations envisioning ways of patientcare across boundaries.

Collaborative Patient Care Agreement-group (CPCA-group): Group who co-creates the CPCA.

Clinician Teacher: Is used to indicate that the teacher is also an active practitioner.

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