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Qualitative Research

Identification of influencing factors and strategies to improve communication between general practitioners and community nurses: a qualitative focus group study

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Abstract

Background. As the number of patients with complex healthcare needs grows, inter-professional collaboration between primary care professionals must be constantly optimized. General practitioners (GPs) and community nurses (CNs) are key professions in primary care; however, poor GP–CN communication is common, and research into the factors influencing its quality is limited.
Objective. To explore patient-related GP–CN communication and facilitating and hindering factors, and to identify strategies to enhance this communication.
Method. A qualitative focus group design was used to identify the facilitating and hindering factors and strategies for improvement. In a Dutch primary care setting, 6 mono-professional focus group interviews (3 meetings of 13 GPs; 3 meetings of 18 CNs) were organized between June 2015 and April 2016, recorded and transcribed verbatim. Two independent researchers performed the coding of these interviews, identifying their categories and themes.
Results. Results show that, despite the regular contact between GPs and CNs, communication was generally perceived as poor in effectiveness and efficiency by both professions. Mutual trust was considered the most important facilitating factor for effective communication. Profession-specific factors (e.g. differences in responsibility and profession-specific language) and organizational factors (e.g. lack of shared care plans, no in-person communication, lack of time) may be of influence on communication. Participants' suggestions for improvement included organizing well-structured and reimbursed team meetings and facilitating face-to-face contact.
Conclusion. GP–CN patient-related communication benefits most from trusting inter-personal relationships. Inter-professional training programmes should address both professional and organizational factors and should be evaluated for their effect on quality of care.

Key words: Family health, multidisciplinary care, nursing, primary care, qualitative research, quality of care.

Background

Clear and effective communication between healthcare professionals is one of the most important determinants for successful collaborative practice (1–6); however, poor communication is common (7–10) and can result in insufficient transfer of patient-related information (10,11). In hospitals, dysfunctional physician–nurse communication is associated with high levels of potential risks to patients arising from increased errors in their care (10,12–14). The growing numbers of chronically ill patients with complex healthcare needs require primary care professionals to urgently optimize inter-professional collaboration (15) and improve communication between general practitioners (GPs) and community nurses (CNs). CNs perform a variety of nursing tasks that take place in people's homes and focus on prevention, care for chronically ill, patient's recovery after illness or hospitalization and terminal care.

Studies in hospitals and long-term care settings reveal that communication between medical and nursing professionals is hindered by individual, social and organizational factors. Social aspects include hierarchical differences and profession-specific language barriers (9,16–18). Whereas nurses often describe patient problems in a detailed way, doctors tend to use brief and factual communication (13,19). Organizational barriers include difficulties in reaching doctors by telephone (8) and poor quality of multi-professional team meetings (20).

Primary care collaboration has been the subject of several qualitative studies, which suggests that mutual respect and trust are key aspects of inter-professional care (21–24). GPs and CNs are key players; however, poor GP–CN communication is common in daily clinical practice (22,25). Until now, GP–CN communication has been rarely studied in detail; therefore, we aimed to identify the factors influencing GP–CN communication and the perceptions and attitudes underlying it. Our primary focus was to investigate how GPs and CNs experience their inter-professional communication and to identify hindering and facilitating factors, as well as identifying strategies to enhance their communication.

Methods

Methodology/research design

A qualitative, explorative research design was used with focus group interviews, because it could be expected that interactions within the group would stimulate the exchange of anecdotes and comments. To ensure high methodological quality, we applied the Consolidated Criteria for Reporting Qualitative Research (COREQ) (26).

Setting and participants

In the Netherlands, the primary and community care system has a wide variety of providers, including GPs, CNs and practice nurses (PNs). GPs work in group practices (33%), in two-person practices (39%) or in a solo practice (28%). CNs are employed by community-care organizations and work mostly in teams of 10–12 colleagues in a specific region. The community care is a regulated market system, and therefore competition exists between organizations (27).

GPs and CNs were recruited using convenience sampling. No exclusion criteria were applied to ensure a broad range of opinions and the acquisition of rich data. Participants were recruited via training sessions for primary care professionals organized in the context of the DementiaNet project (28) (n = 6 CN); via a regional newsletter for GPs (n = 1 GP) and via the personal networks of the researchers (n = 15 CN, n = 17 GP). In total, 39 professionals responded (21 CNs, 18 GPs); however, 3 CNs and 5 GPs were not able to attend the meetings due to personal circumstances. Participants received a small reward after participation.

Data collection

The focus group interviews were organized between June 2015 and April 2016. The interview guide was based on themes that emerged in previous research on inter-professional doctor–nurse communication in other settings (8,13), inter-professional collaboration (3,29) and expert opinion. Topics related to individual attitudes and experiences, barriers and facilitators, quality of care and common strategies for overcoming barriers. After the first meeting of both groups, interview topics were added, including attitude towards autonomy and feelings experienced during communication (see Supplementary File 1).

Mono-professional groups were formed to create an atmosphere of equality and trust, knowing that hierarchical relationships could hinder open discussions (30). Two experienced independent facilitators (RvdS, MP) led the sessions (mean duration 80 minutes). At the start of the meetings, participants were explicitly invited to speak freely about the experienced problems in a strictly confidential atmosphere. Participants provided written consent and filled in a paper form about their background, clinical practice and communication methods. After each meeting, the facilitators and the primary researcher (MN) summarized the main results and discussed new insights.

Discussions were recorded and transcribed verbatim. A summary of the main results was sent to participants for comments on interpretation and completeness, which led to minor adjustments. Interviews were organized until we sensed that sufficient insight was attained and data saturation was reached.

Data analysis

ATLAS.ti (version 7.1.5) was used to facilitate thematic content analysis (31). A codebook was developed based on the interview guide, and open coding was applied. The properties and dimensions of categories were identified and altered during the coding process. After the initial coding, the data were categorized, and overall themes and subthemes were formed. To improve the validity of these categories, two researchers (MN, IM) independently coded the first two transcripts and reached consensus on conceptual labels and categories. Subsequent transcripts were coded by IM and checked by MN. Differences were discussed until consensus was reached.

Results

Participant characteristics

For each profession, saturation was reached after three sessions. In total, 18 CNs participated; 16 were women (88.9%), mean age 44.8 and mean 13.4 years of experience in primary care. All CNs had a bachelor's degree in nursing. Thirteen GPs participated; eight were women (61.5%), mean age 47.2 and mean 16.3 years of experience. The participants worked in different regions and practices.

Patient-related communication usually concerned complex patient issues, including palliative care, frail elderly and wound care. Topics of discussion included the deterioration of patients' health and the need for coordination or follow-up after events such as hospitalization. Communication mainly took place by telephone and email. Contact frequency varied from occasional to daily, with the latter mostly occurring in the case of terminal care or crisis

situations. Table 1 summarizes the demographic characteristics of the participants and practice essentials.

Thematic factors

Our content analysis revealed that trusting inter-professional relations was the overall theme to effective communication. Factors were summarized into three subthemes: profession-specific factors, organizational factors and improvement strategies. The results are summarized in Table 2, and relevant quotes are presented in Table 3.

Profession-specific factors.

All participants stated that communication improves when you know each other in person and trust each other. GPs emphasized that competency and a sense of responsibility in CNs enhanced their trust; therefore, they preferred collaboration with skilled and engaged nurses.

> When she [specific CN] calls, then something is wrong. Then, I know I have to take action (GP 5, focus group 3).

CNs actively worked to gain trust, for example by performing well on agreed-upon tasks. They explained that they felt unequal to GPs because of their lower levels of education, power of influence and accountability in patient care. GPs did not explicitly mention hierarchical differences.

A lack of shared responsibility was often mentioned as a barrier to effective communication. Shared care plans were scarce, which often led to the late transfer of essential information, causing mutual annoyance; for example, GPs stated that CNs regularly contacted them in crisis situations without making them aware of previous actions taken by CNs. GPs experienced this late appeal for help as CNs wanting to pass their responsibility onto them. CNs mentioned similar problems; in their opinion, GPs often did not want to act on requests immediately and lacked a sense of responsibility

Table 1. Baseline characteristics of participants/results of paper forms, December 2016

	Community nurses, (N = 18)	General practitioners, (N = 13)
Age in years, mean, (SD), [min–max]	42.8, (12.6), [24–60]	47.2, (11.4), [35–69]
Women (%)	88.9	61.5
Work experience in years, mean, (SD), [min–max]	13.4, (12.1), [0–40]	16.3, (11.4), [4–41]
≤5 years, *n*, %	12, 66.7	1, 7.7
>5 years, *n*, %	6, 33.3	12, 92.3
Practice in region, %		
Urban	64.7	46.2
Urbanized countryside	5.9	30.8
Rural	29.4	23.1
Practice in, No		Not applicable
Community-care organization	16	
Solo nursing practice	1	
Other	1	
Primary care practice, No	Not applicable	
Solo practice		2
Duo practice		3
Medical health centre		4
Multi-professional health care centre		4
Participation in multi-professional meetings (yes, %)	83.3	84.6
Number of collaborative community-care organizations per GP, %	Not applicable	
1		0.0
2 to 3		61.5
4 to 6		38.5
>6		0.0
Number of CN/GP or GP/CN that share patient care, %		
None	5.6	0.0
1 to 5	6.7	50.0
6 to10	33.3	33.3
>10	44.4	16.7
Number of CN/GP or GP/CN that are known in person, %		
None	0.0	8.3
1 to 5	40.0	33.3
6 to 10	40.0	33.3
>10	20.0	25.0
Methods of communication, % between GP/CN		
Phone calls	100	84.6
Virtual meetings, asynchronous	18.8	46.2
In-person meetings	93.8	84.6
Emails	75.0	46.2
Letters	6.3	0.0
Through care plans at patients home	81.3	92.3
Other	31.3	0.0

CN, community nurse; GP, general practitioner; SD, standard deviation.

Table 2. Summary of factors hindering GP–CN communication and strategies to improve communication, December 2016

Hindering factors	
Profession specific, characterized by	Organizational specific, characterized by Distance:
Differences in	
Education levels	Lack of personal contact
Responsibilities	Lack of easy access
Hierarchical position	Lack of shared access to care plans
Language	characterized by Disorganization:
Perspective on care	Working from separate organizations
	Lack of time and financial support
Improvement strategies	
Present in daily practice:	Future opportunities:
CN:	CN/GP:
More face-to-face contact	Communication skills training
Shared patient visits	Communication tools and information and communication technology
Defining tasks and responsibilities	GP:
Building rapport	Improving team skills (feedback)
Adapting communication style	Collaboration skills in vocational training
GP:	Less competition between community-care organizations
Small number of CN teams	Adequate reimbursement
One CN as single entry point	

CN, community nurse; GP, general practitioner.

and involvement. They felt that their concerns were not taken seriously and felt obliged to confront and criticize GPs displaying that behaviour.

> Then it is good to state: "I am not taking responsibility for this situation any longer, when you [*GP]* choose not to visit the patient". Then you point out your expectations clearly (CN 1, focus group 2).

This perceived offloading of responsibilities harmed the building of inter-professional trust.

GPs and CNs acknowledged their mutual lack of insight into each other's tasks and professional domains. GPs valued nurses for being empathetic and considerate to patients' opinions and goals; however, CNs questioned whether GPs really understood the extent of their profession. Additionally, differences in the structures for presenting information between medical and nursing professions were identified as a barrier. GPs mentioned that CNs usually presented patient information with too many details on non-medical issues.

> I do not need to chat about vanilla custard and the patient having a fine day (GP 10, focus group 6).

Moreover, GPs said that CNs were unclear about their reason for consultation. This made GPs unsure about what was being requested; for example, whether they needed to provide information or give advice or if they were being asked for home visits.

Organzational factors.

All participants mentioned accessibility by telephone as crucial for communication. Although the exchange of mobile phone numbers was considered important for easy contact, GPs were rather reluctant to share these other than on an incidental basis or in specific situations (e.g. terminal care), as they feared frequent disturbance. Email was often used, though privacy regulations sometimes hampered this method of communication. Most GPs appreciated the CNs' presence at multi-professional meetings. However, CNs often were not part of this core team, as CNs were not able to provide one single nurse as liaison to their nursing team. All GPs used receptionists as an intermediate person to organize communication with patients and other healthcare professionals. Only some GPs realized that this might hinder their direct communication with CNs.

> Yes, we are a fortress that you cannot pass easily (GP 11, focus group 6).

CNs indeed considered receptionists to be a major barrier, as they did not always pass on messages, leaving requests unanswered. In some practices, PNs were installed, which was considered to facilitate effective communication. CNs regarded PNs as equal collaborating partners as the majority have a nursing background and considered them to be easily approachable and as a more direct link with the GPs.

Fragmentation and discontinuity resulting from market mechanism in community-care organizations were identified as barriers. GPs usually collaborated with 3 to 5 different CN teams of up to 12 people. These teams were employed by various organizations, each with their own communication methods and strategies.

> I think the fragmentation of care is immense. It hinders communication and good patient care (GP 1, focus group 1).

CNs felt hampered by the many different GPs they work with, especially in urban environments where GPs often work part time in group practices with a large catchment area.

Participants considered their lack of time as an important barrier. Adequate reimbursement is not available for extensive communication, such as inter-professional team meetings. Some GPs refused to attend multi-professional meetings to limit time-consuming consultations with collaborating professionals.

> Each doctor gets paid for doing his job. The physiotherapist gets paid for doing his job. The CN gets paid for doing her job. But nobody gets paid for integrating these activities (GP 8, focus group 3).

GPs preferred less frequent communication due to lack of time, whereas CNs wanted more frequent contact.

Actual and future strategies to improve communication.

All participants used strategies to build inter-professional relationships and trust. CNs were the most active; they initiated

Table 3. Quotes on profession specific, organizational factors and points of action, December 2016

		Quote
Professional specific factors		
GP 5 (3)	Trust	When she [specific CN) calls, then something is wrong. Then, I know I have to take action.
CN 3 (2)	Trust	And then I received a text message from the GP 'It is late already, but I want to thank you for excellent teamwork'. And then I thought 'Wow'. I kept this message in my phone for a long time. Absolutely!
CN 7 (4)	Task perception	I wonder: 'Do they (*GPs*) have sufficient overview of our tasks? I believe GPs are not aware of everything we do.
CN 12 (5)	Task perception	I think many GPs don't have a clue about what's going on in the community and what's going on at the patient's home. (…) We (*GP and CN*) had dressed the wound on a patient's feet and the patient was ready to leave the GP's practice. I asked: "Can you manage to go to work? Can you wear your shoes?" And she (*GP*) looked at me and asked "What kind of question is that?" I said: "That is important, isn't it? You invented a very nice bandage-shoe, but maybe she can't wear it under her uniform". Later she (*GP*) said: "Yes, you were right. You start, where I finish."
GP 3 (1)	Task perception	We work problem-orientated: if there is a problem, a plan is made. That is not the way a CN works. The nurses see more details and have another approach. Simply said, we are living in different worlds.
CN 1 (2)	Task perception	Then it is good to state "I am not taking responsibility for this situation any longer, when you *(GP*) choose not to visit the patient". Then you point out your expectations clearly.
CN 3 (2)	Equality	You (*GP*) are obviously unequal regarding education and in final responsibility.
GP 10 (6)	Communication style	I do not need to chat about vanilla custard and the patient having a fine day.
Organizational factors		
CN 17 (5)	Acquaintance	We cover a large area, also in which other community-care organisations are also active. Indeed, I guess about ten organisations. And in this same area, at least twenty GPs are working. Of course, you lack trusted relations with certain GPs. So, yeah well, I cannot build a special relationship with all twenty of them.
CN 2 (2)	Acquaintance	I don't know the GP when I consult him about one of my clients (……) I don't know how they look like. I only know 3 of them by name and working address. And I find that difficult. I feel jealous *(on a colleague who works in a small village)*.
CN 9 (4)	Distance	When you call the GP, you get the receptionist. And you don't get an answer immediately. (…) but will be called back at the end of the morning. That isn't always the case, by the way. The receptionist calls back with the GP's answer. When I question the answer and want to know the underlying motives, I cannot ask any further questions.
GP 11 (6)	Distance	Yes, we are a fortress, that you cannot pass easily.
GP 13 (6)	Disorganisation	I recently wrote my findings in a nursing care plan at the patient's home. But then I found out they (*CNs of the community-care organisation*) had recently introduced an electronic system. Hilarious!
GP 8 (3)	Disorganisation	Each doctor gets paid for doing his job. The physiotherapist gets paid for doing his job. The CN gets paid for doing her job. But nobody gets paid for integrating these activities.
GP 1 (1)	Disorganisation	I think fragmentation of care is immense. It hinders communication and good patient care.
Points of action		
CN 11 (4)	Already undertaken	I think the GPs also saw the advantage of the new agreements in elderly care. They do not have to do everything on their own and keep worrying about their patients.
CN 10 (4)	Already undertaken	I communicate through 'SOEP' (Symptom, Observation, Aetiology, Problem). Then, I really make them happy (*laughing*).
CN 14 (5)	Already undertaken	Well, by talking the way the GP thinks. Because he wants to hear a problem.
GP 5 (3)	Already undertaken	I am actively reducing the number of organisations to work with. When I visit my patients in hospital, I tell them which organisation they have to choose when they need follow up care.
GP 8 (3)	Already undertaken	When we want to support people to stay at home independently as long as possible, we do not want nurses to pamper and to take over tasks too soon. The GP practice should share this vision with collaborating Community nursing teams and welfare teams.
GP 8 (3)	Future strategy	We have to organise the underlying collaboration structure. Because this structure is lacking for many GPs.
GP 12 (6)	Future strategy	Smaller teams are better, so I can recognise the shirt numbers.

CN, community nurse; GP, general practitioner; (number), focus group number.

face-to-face contact by visiting GPs, organized shared visits or consultation meetings and discussed various roles and tasks. Some CNs specifically stated that they adapted their communication style to the GPs' wishes for a more structured format. GPs mentioned they had improved communication by training CN teams on common care problems and developing shared care programs for elderly patients. GPs also tried to reduce the number of community-care organizations they communicated with, by motivating patients and their carers to choose their preferred organization or by referring patients to one specific district nursing team.

> Smaller teams are better, so I can recognize the shirt numbers (GP 12, focus group 6).

Within this team, they limited communication to one specific CN.

Participants articulated possible strategies for effective communication. On a micro level, these strategies included improving team communication competencies, e.g. by using feedback loops and discussing patient cases that did not meet quality standards. On meso level, both GPs and CNs emphasized the importance of communication skills training and the use of practical communication tools that structure information. The vocational training of GPs should focus more on collaboration and communication because GPs are

only trained as solo practitioners. Participants also expressed their wishes for better access to information and communication technology tools that would enable them to share information more easily.

> We have to organise the underlying collaboration structure. Because this structure is lacking for many GPs (GP 8, focus group 3).

On a macro level, participants suggested that governments should consider modifying laws and regulations to reduce competition within the primary care sector and ensure adequate reimbursement for time investments in structural team meetings.

Discussion

This study reveals that inter-professional trust is key to effective GP–CN communication. Although this finding in itself seems rather self-evident, underlying factors were identified that influence communication at both the professional and organizational levels. We found that boundaries between nursing and medical domains are perceived as sharp and difficult to cross. Inequality in hierarchical positions, differences in communication style and lack of a shared vision on care were addressed as important barriers. Organizational factors, such as a lack of personal contact and shared care plans, expanded the distance between professionals and created feelings of distrust. Nevertheless, both professional groups identified and applied strategies to enhance inter-professional trust to improve patient-related communication.

Our findings regarding GP–CN communication are consistent with previous studies on primary care collaboration, which revealed that successful inter-professional collaboration is characterized by mutual trust and understanding, agreement on tasks and responsibilities (24,32–35). Trust could be developed by providing ample time for collaboration (36), by incorporation of concepts of a shared holistic view (37) and better understanding of other professionals' skills and organizational contexts (38). Inter-professional trust is, however, hindered by direct confrontation; for example, by inequality, a lack of team goals and geographical proximity (29) or by challenging the GP's authority or not cooperating (21).

Our results are also in line with studies on communication in hospitals and long-term care settings, which showed identical factors at professional and organizational levels (16–19,30). In primary care specifically, medical and nursing professionals often work in different locations and are affiliated with different organizations with varying interests, visions, procedures and methods of working. These differences increase the challenge of ensuring adequate inter-professional collaboration and communication. Indeed, in our study, organizational factors in primary care seemed even more diverse and disruptive than in other settings. Some organizational barriers are difficult to overcome, including lack of time, financial reimbursement for communication and the organization of inter-professional meetings. Additionally, CNs who work part-time and regulated market mechanisms lead to increased fragmentation of community care delivering.

CNs expressed difficulties in crossing professional boundaries because of hierarchical differences, which caused feelings of inequality. GPs should be aware of this, especially since previous research pointed out that the GP's support is crucial for collaboration in primary care (29,33). However, GPs claimed that their vocational education programmes lacked collaboration practice and inter-professional communication skills training. Collaborative skills and talents may be particularly less prominent for GPs in the Netherlands, as almost one-third work as a solo practitioner, which is significantly less common in other European countries (27).

In this study, we explicitly aimed to identify useful points of action for improving communication. Communication in primary care appears to be a complex phenomenon, and the methods to cope with this complexity varied between professions. GPs showed mainly reductionist and exclusion strategies, investing in reducing complexity and focussing on short-term gains for themselves (39,40). For example, they diminished the number of collaborations with CNs and reduced time-consuming consultations. Contrary to GPs, CNs demonstrated connecting strategies and strived to become the GPs' trusted partners in care. The development of inter-professional learning strategies incorporating collaboration skills between GPs and CNs could be promising for improvements in primary care. In hospital and long-term care settings, training in structured communication has been effective in reducing patient safety issues (8,9,13,17,19). Likely, a combination of multiple interventions will be needed, as isolated solutions cannot overcome all factors we have identified.

To the best of our knowledge, this study is the first to extensively explore the underlying ideas and feelings of suboptimal GP–CN communication in a primary care setting. It therefore contributes new insights and knowledge that may facilitate the improvement of collaborative primary care. To ensure methodological quality, experienced independent moderators interviewed mono-professional focus groups to enable them to safely share their ideas, and we managed to obtain rich data from professionals with varying backgrounds from different organizations. Our study was conducted in the primary care setting in the Netherlands, which is largely characterized by inter-organizational collaboration; hence, CNs are affiliated with community-care organizations, and GPs work in solo or group practices. This might limit the transferability of our results to settings in which nurses and GPs work in the same building; nevertheless, most of the GPs who participated in our study worked in medical and multi-professional centres and, despite the fact they worked in same buildings as other professionals, they experienced similar problems with communication. In the last decade, the number of female GPs has increased to 55.3% in Dutch primary care. Therefore, our sample reflects the actual situation in clinical care.

From literature, we know that communication between physicians and nurses is problematic in other countries as well (1,8,9,29). Since organizational arrangements, education programmes and collaborative practices may differ between countries, different emphases and solutions for poor communication might be required.

As shown in this study, promoting trust and crossing professional boundaries are the most important targets for improving patient-related communication and enhancing CN–GP collaboration. Training and education should focus on the development of inter-professional learning strategies in primary care, enabling professionals to overcome these barriers and improve their communication skills. Equipping healthcare professionals with the right skills is equally as important as focusing on knowledge transfer. Future research could investigate the effectiveness of these measures, as both the quality of care and job satisfaction of healthcare workers may be substantially improved when collaboration among their teams is enhanced.

Supplementary material

Supplementary File 1 is available at *Family Practice* online.

Declaration

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