Integrated Healthcare Journal

Clinical leadership training in integrated primary care networks: a qualitative evaluation

Minke Nieuwboer ,[1,2] Rob Van der Sande,[2] Marcel Olde Rikkert,[1,3] Marjolein Van der Marck,[4] Marieke Perry[1,5]

To cite: Nieuwboer M, Van der Sande R, Olde Rikkert M, *et al*. Clinical leadership training in integrated primary care networks: a qualitative evaluation. *Integrated Healthcare Journal* 2022;**4**:e000086. doi:10.1136/ihj-2021-000086

Received 26 March 2021
Accepted 22 August 2022

[1]Department of Geriatric Medicine, Radboud University Medical Centre, Nijmegen, The Netherlands
[2]Academy Health and Vitality, HAN University of Applied Sciences, Nijmegen, The Netherlands
[3]Donders Institute for Brain Cognition and Behaviour, Department of Geriatric Medicine, Radboud University Medical Centre, Nijmegen, The Netherlands
[4]Radboud Institute for Health Sciences, Radboud University Medical Centre, Nijmegen, The Netherlands
[5]Department of Primary and Community Care, Department of Geriatric Medicine, Radboud University Medical Centre, Nijmegen, The Netherlands

Correspondence to
Dr Minke Nieuwboer; minke.nieuwboer@radboudumc.nl

ABSTRACT

Objective To explore how a clinical leadership training programme contributes to successful implementation of integrated dementia care in local primary care networks.

Methods and analysis A qualitative design was used in local primary care networks in the Netherlands. Twenty-six primary care professionals, nurses (n=22), general practitioners (n=2) and occupational therapists (n=2) followed a 2-year practice-based educational programme including individual coaching and interactive group training. Embedded leadership training created opportunities for direct application of acquired leadership skills. Reports of coaching sessions and transcripts of semi-structured interviews with 20 leadership trainees, 8 network members and a focus group interview with 9 leadership trainees were thematically analysed.

Results They identified 50 learning goals, mostly associated with personal leadership competences. These professionals perceived some improvement in their leadership behaviour and preferred a duo-network leadership arrangement. Individual coaching sessions and group training sessions were perceived as fruitful support. Coaching sessions were found to facilitate learning processes regarding personal competencies, collaboration issues and role clarification. Group meetings were appreciated for exercises on transformational leadership behaviour and exchange of experiences. Network leaders and members observed improved quality of care and mentioned continuity of leadership, perseverance of leaders and a sufficient time period to bring about change as important facilitating factors.

Conclusion Clinical leadership training to stimulate integrated primary care is promising as it was positively valued and contributed to improved perceived leadership competencies. Network leaders and members experienced improved quality of care when at least continuity in leadership was warranted.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Clinical leadership is recommended for successful implementation of integrated care.
⇒ Nonetheless, it is unclear how clinical leadership within integrated care settings can best be supported.

WHAT THIS STUDY ADDS

⇒ This study adds the following insights: (1) primary care professionals' main learning goals are focused on personal leadership competences and shared leadership is highly valued and might contribute to leader's empowerment; (2) continuity of leadership is an important facilitating factor for quality improvement.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ We advocate further implementation of multifaceted leadership support programmes in primary care networks to support clinical leadership.

INTRODUCTION

Leadership appears to be a major facilitating factor for collaboration between professionals and implementation of integrated care models.[1] This notion applies especially to the context of primary care, where professionals work in different organisations and teams, have different goals and often are not personally acquainted.[2] Local network arrangements and network leadership could stimulate primary care integration.[3] Recognition of the need for professionals' leadership role development is increasing,[4] as the importance of clinicians' collaboration and leadership skills for medical and care professionals is emphasised by their recent inclusion in the Canadian Medical Education Directives framework, which describes the medical and nursing professionals' competencies to effectively care for their patients.[5] However, clinical leadership in the context of integrated primary care is hardly applied in daily practice.[6]

In hospitals, clinical nurse leadership showed to improve both quality of care and interprofessional collaboration, and local opinion leaders were likely to improve professionals' compliance with evidence-base practice.[7–9] In primary care, nurses are key participants in local networks and often fulfil a central role in integrated care arrangements.[10] They thus may be good candidates to

Box 1 Key elements of DementiaNet

1. Facilitating interprofessional collaboration between primary care professionals that are responsible for a shared case-load of people with dementia: from ad hoc towards structured collaboration.
2. Facilitating leadership: at least one network participant was recruited to lead the interprofessional local network. This informal network leader had to connect the different professionals and patient's representatives, to stimulate collaboration and support the quality improvement processes.
3. Plan-Do-Check-Act cycles based on quality feedback.
4. Interprofessional education within the network about self-selected topics.

take on leadership roles. Physician leaders, however, were viewed as the most suited professionals for practising clinical leadership.[11]

Because primary care professionals are not accustomed to performing leadership roles in networks, development of their leadership skills is recommended.[12] Leadership training programmes were suggested to address relational and organisational skills as well as process-management and change-management skills.[13]

Within the Dutch DementiaNet collaborative care approach (an intervention aimed to improve integrated primary dementia care), facilitating network leadership is one of the core components (box 1). Each DementiaNet network is a local interprofessional team that includes healthcare professionals from medical, care and social domains in a neighbourhood, which corresponds with the catchment area of the general practitioners (GP) practice.[14]

In these DementiaNet-networks, network leaders connect the different professionals, and stimulate collaboration and support quality improvement processes. To support the network leaders in their role, a 2-year leadership training programme was designed.

The aim of this study is to identify the leadership programme's successful elements, to explore participants' leadership experiences in a practice networked environment.

MATERIALS AND METHODS

Patient and public involvement statement

Patients and public were not involved in this research. However, within the context of the DementiaNet networks, we aim for active participation of frail older persons or informal caregivers in every local network.[14]

Study design and population

This study has an explorative, qualitative design. Qualitative methods and results are reported according to the Consolidated Criteria for Reporting Qualitative Research.[15] This study focuses only on the evaluation of the 2-year leadership programme within DementiaNet, as a separate part of the overall evaluation of the DementiaNet programme.[14] Between June 2014 and October 2014, we invited GPs, community nurses (CN), dementia case manager nurses (CM) and practice nurses (PN) via regional newsletters, national newsletters and the researchers' professional networks to form local networks. The first group of network leaders started the leadership programme between January and September 2015. Other network leaders joined a year or more later once they heard about the programme via colleagues, newsletters, websites and/or training activities. Professionals were excluded from entering the leadership programme when they were not able to motivate collaborating professionals to arrange a local network and create a practice environment. All trainees were included to join the evaluation of the leadership programme.

Description of the leadership intervention

With the intervention, we aimed to develop clinical leadership: 'leadership performed by medical and nurse clinicians'.[16 17] Leadership theories that best match the requested leadership behaviour in the local network setting are transformational types of leadership, such as situational leadership,[18] connective leadership[17] and personal leadership.[19] The 2-year support leadership programme was based on these theories and followed the NHS Healthcare Leadership Model[20] and used elements of several clinical leadership programmes.[21–23] The leadership programme was embedded within the DementiaNet approach, thus creating opportunities for direct application of acquired leadership skills and implementing tools and principles in the daily primary care in local networks (box 1). The programme consisted of the following elements: first, participants and their colleagues were asked to complete a multisource (360 degree) feedback questionnaire, which is the Dutch version of the Clinical Leadership Competency Framework's self-assessment tool. Based on the results of this feedback, trainees were asked to articulate learning goals in order to ensure appropriate focus during the leadership programme; second, trainees received individual coaching facilitated by two coaches (MP and MN). Both coaches received training in interprofessional education at the academic postdoctoral training institute at Radboud Health Academy, The Netherlands.[24 25] Every coach-trainee meeting followed a structured agenda: a discussion of (a) the trainee's progress towards achieving learning goals, (b) how new skills could be practised within the network, (c) network issues, such as collaboration problems and (d) advancement on Plan-Do-Check-Act cycles. We planned four coaching meetings on average per trainee; the frequency of the meetings depended on the needs of the trainees; third, the trainees attended three different 3-hour group sessions, which were scheduled 3 months apart and led by a qualified, experienced trainer (JdB). During these sessions, trainees were invited to exchange experiences and practice different transformational types of leadership interactively with training actors.

Data collection sources and procedures

Baseline characteristics were collected among the leadership trainees via a short online questionnaire and included

age, gender, profession, education, number of years of experience in primary care and prior experience in leadership roles. Information about participation and reasons of absence was retrieved from training registration forms and the reports on the coaching sessions. Total participation was defined as attending a minimum of two meetings with a coach and a minimum of two group training sessions. Partial participation was defined as attending at least one meeting with a coach and at least one group session. Everything else was defined as no participation.

Four different qualitative data sources were collected for triangulation.

1. Reports were written of all telephone or face-to-face coaching conversations and included the trainees' progress towards their personal learning goals. Reports of coaching meetings were written immediately after the sessions by the coach and checked by the trainee for interpretation and completeness.
2. Data on experiences with the programme, the competence of the trainers and coaching staff and the learning process were collected in semi-structured interviews by a trained research assistant (IM) with the leadership trainees individually or in pairs depending on whether network leaders shared their leadership role. These semi-structured interviews with all leadership trainees were held after 1 year (T1) when they were to be sufficiently exposed to the programme, and after finishing the leadership programme (T2) to be able to evaluate progress on learning goals over time.
3. A focus group interview with leadership trainees led by an independent facilitator (JdB) invited them to discuss the progress made towards meeting their learning goals, as well as barriers and facilitators to realise these. Preliminary results of the learning goals, as formulated in the coaching meeting reports were presented as input for the discussion. This focus group interview was organised 2 months after finishing the programme.
4. Semi-structured interviews were held with a purposive sample of members (not being leaders) from different networks that had been participating for at least 1 year and were led by a trained research assistant (IM). The interview topics included the network leader's performance and the added value of the leader for the network's achievements.

All interviews (individual and focus group) were recorded and transcribed ad verbatim, and member checks were performed in all cases.

Analysis

Descriptive statistics were used for the leadership trainees' characteristics and compliance to the programme. Transcripts of the interviews with leadership trainees and network members were independently analysed inductively through open coding by two trained researchers (IM, AR). Consensus on the codes was reached through discussion. The results were summarised and illustrated by quotes taken from the different interviews.

Box 2 Leadership Practices Inventory subscales

The five dimensions of the Leadership Practices Inventory subscales are:

1. Modelling the way: a leader has personal credibility and acts consistently with their values and beliefs.
2. Inspiring a shared vision: a leader has a clear picture of possible developments and enlists others in a shared vision.
3. Challenging the process: a leader looks for opportunities and innovations to improve and experiments, takes risks and learns from their mistakes.
4. Enabling others to act: a leader fosters collaboration by supporting cooperative goals, building trust and strengthening others by sharing power.
5. Encouraging the heart: a leader recognises individual contributions and builds a strong sense of collective identity and team spirit.

The transcript of the focus group was analysed inductively through open coding by two trained researchers (DO, MN). Codes were clustered into categories and themes, and illustrative quotes were derived. ATLAS.ti V.8.2 was used for qualitative analyses.

The results of the qualitative analysis of the different data sources were compared, integrated by identification of related patterns and jointly reported in the 'Results' section.

The reports of the coaching meetings were analysed by a research assistant (LvdH) based on the number and content of learning goals. These goals were allotted to subscales of the Leadership Practices Inventory (LPI) they belonged and were rated whether they were achieved. The LPI was chosen as analysing scheme because the Dutch LPI version was validated for evaluating nursing leadership programmes in the Netherlands and most of the leaders had a nursing background. The analysis was checked by another researcher (MN). LPI measures leadership, defined as the behaviour of leaders who move followers beyond immediate self-interests through influence (charisma), inspiration, intellectual stimulation or individualised consideration.[26] LPI consists of five subscales that correspond with five different dimensions of transformational leadership[27] (see box 2).

RESULTS

Twenty-six network leaders participated in the programme. Most leaders had a nursing background; the majority were CN (n=10), PN (n=6) and CM (n=6). Two leaders were GPs, and two were occupational therapists (OT). They worked in 16 different primary care networks of various sizes (median 9, minimum 5 and maximum 22 professionals) located in the eastern region of the Netherlands. Six of them had singular leaders, whereas 10 networks were led by a duo. The network leaders were mostly women (n=25, 96%) and were mean 48.9 (SD 10.3) years of age. Their education levels encompass a Master of Science (n=2), a Bachelor of Science (n=16) and other degrees (n=8). The mean work experience in their

present job was 9.2 (SD 6.1) years. Half of them had prior leadership experience, for example, as team leader in a nursing home. All trainees finished their 360-degree self-assessment and several trainees positively assessed their own leadership behaviour at the start of the programma, especially when they had prior leadership experience.

Eighteen leaders joined the programme for the full 2-year period. Eight leaders followed the programme for 1 year at the moment of evaluation. Fifteen trainees followed all elements of the training, and 11 trainees joined only partially. Reasons for not fully joining the programme were: changing jobs, long-term illness and long distance to training location.

The median number of meetings with a coach was 3 (SD 2.3). The number of meetings with a coach varied from one to nine meetings. Sixteen trainees (61.5%) attended all three group sessions, and seven trainees attended only one group session (26.9%).

In total, 16 interviews were held with 21 network leaders (in pairs n=5, individually n=11), 10 interviews at T1 and 6 at T2. In the focus group interview, nine leaders participated (CN, n=4; CM, n=2; PN, n=1; GP, n=1; OT, n=1). The interviews with network members (not leaders) were held with eight professionals from eight different networks (CN, n=3; CM, n=1; PN, n=1; GP, n=1; OT, n=1; social worker, n=1) (table 1).

The main themes inductively derived from the semi-structured interviews with leadership trainees network members and the focus group interview with leadership trainees (table 2) were integrated into three overarching themes: (1) learning process of trainees; (2) leadership competencies and (3) impact of network leadership in practice.

Learning process of trainees

Individual interviews and the focus group interview revealed that most participants felt supported through receiving personal coaching and found that it contributed to meeting their learning goals. They mentioned that the sessions were moments of personal reflection. Furthermore, most network leaders explicitly mentioned the personal coaching as being valuable.

> I have never been supported so well, personally. It was a boost for my self-confidence. (CN 15, network K)

All leaders expressed that personal coaching helped them to clarify their role. Some leaders noticed that the coach helped them to become aware and appreciate the steps taken in their learning process, resulting in renewed enthusiasm. Others valued the possibility to brainstorm-specific solutions or discuss tangible examples from other networks together with the coach. However, some participants articulated a difficulty to express learning targets or did not need personal support.

The group meetings were appreciated because of the creative format, open atmosphere, humorous approach and recognisable training situations. Participants identified the exercises geared towards changing behaviour and communication as a successful element.

> I have learned what to do when a network participant has only little interest in joining the network. I try to keep in contact and to ask 'What do you need' instead of 'I want you to join'. I learned to treasure the small opportunities. (CM 5, network C)

Network leaders valued the group meetings to be able to exchange experiences and to get more grip on and understanding of the personal competencies related to being a network leader. They expressed that after the group sessions ended, they would have preferred the exchange of experiences with their peers to be continued.

From reports of 55 coaching conversations, we identified a total of 50 learning goals. Most goals (34%) were associated with the dimension 'Modelling the way'. These learning goals included: better articulation of own opinions and more satisfaction with own achievements. How to share responsibility with other network participants (dimension 'Enable others to act') was less frequently addressed (18%). Participants were often not successful in reaching the goals in this dimension (56%). Also, learning goals associated with team-building (dimension 'Encouraging the heart') were scarcely articulated (10%) (table 3).

Results from the focus group interview partly supported the findings on learning goals. Network leaders recognised that they were confronted with personal leadership issues, and reported that they learnt to facilitate the network by applying a better network structure and jointly selecting and conducting improvement plans in dementia care within the network.

Leadership competencies

Focus group interview findings revealed that network leader trainees experienced that their leadership behaviour gradually improved. They mentioned that they were more aware of other professionals' intentions and therefore could more easily persuade others to join actions. Some network leaders added that at the start of the programme they had underestimated the difficulty of the network leader's role and felt insecure.

> During the first year we often told each other 'we do not reach any goal within the network'. (PN 4, network B)

Some network leaders considered bad network performance, for example, when a GP never attended network meetings, a result of their own incompetence. They felt they lacked persuasion to entice the GP to join network activities. Issues like dealing with the competition between organisations and changing negative attitudes were judged persistently and were difficult to change. They experienced they did not succeed in identifying common interests and building a collective identity. Also, they assessed their contribution to a positive team spirit to be limited.

Table 1 Characteristics of participants' semi-structured interviews and focus group interviews

	Part. no	Professional background	Gender f/m	Age (in age range*)	Educational level	Role leader I/D	Network code and location	Time network exists (in years)
Semi-structured interviews TI (n=10); in total 13 participants (4 pairs, 5 individuals)								
Pair 1	1 2	GP PN	f f	2 2	MSc BSc	D D	A Town	3
Pair 2	3 4	CM PN	f f	2 3	BSc other	D D	B Town	1
Pair 3	5 6	CM GP	m f	2 2	Other MSc	D D	C Village	3
Pair 4	7 8	CN CM	f f	1 3	BSc BSc	D D	D Village	1
	9	PN	f	2	Other	I	E City	1
	10	CN	f	1	BSc	D	F City	1
	11	OT	f	2	BSc	D	G City	1
	12	CM	m	2	BSc	I	H Village	1
	13	CN	f	2	BSc	I	I City	1
Semi-structured interviews T2 (n=6); in total 8 participants (2 pairs, 4 individuals)								
Pair 1	1 2	GP PN	f f	2 2	MSc BSc	D D	A Town	4
Pair 2	3 4	CM PN	f f	2 3	BSc other	D D	B Town	2
	14	CN	f	2	BSc	D	J City	2
	15	CN	f	2	BSc	I	K Town	2
	16	CM	f	3	BSc	D	L City	2
	17	PN	f	2	Other	D	M City	2
Focus group interview (n=9)								
	1	GP	f	2	MSc	D	A Town	4
	5	CM	m	3	Other	D	C Village	4
	7	CN	f	1	BSc	D	D Village	2
	11	OT	f	2	BSc	D	G City	2
	13	CN	f	2	BSc	I	I City	2
	17	PN	f	2	Other	D	M City	2
	18	CM	f	2	Other	D	G City	2
	19	CN	f	2	BSc	D	M City	2
	20	CN	f	2	BSc	I	N Town	2
Semi-structured interviews network members; n=8								
	21	CN	m		BSc		A Town	4
	22	CN	f		BSc		B Town	2
	23	PN	f		BSc		G City	2
	24	SW	f		BSc		I City	2
	25	OT	f		BSc		L City	2
	26	GP	m		MSc		M City	2
	27	CN	f		BSc		O Town	2
	28	CM	f		BSc		P Town	2

Each participant has been given an individual number, to make clear that some have participated in different interviews. As interviews were organised on different dates, the time networks exist may differ.
*Age range: 1=20–39 years; 2=40–59 years; 3=>59 years.
CM, dementia case manager; CN, community nurse; D, duo leadership; f, female; GP, general practitioner; I, individual leader; m, male; OT, occupational therapist; PN, practice nurse; SW, social worker.

Table 2 Themes inductively derived from semi-structured interviews and focus group interview

Method	Themes	
1. Semi-structured interviews with leadership trainees	1.1	Leadership competencies self-assessed
	1.2	Experience with coaching
	1.3	Satisfaction with group sessions
	1.4	Prerequisites for future
2. Semi-structured interviews with network members	2.1	Position of leader in network
	2.2	Competencies of network leader
	2.3	Added value of network leader
3. Focus group with leadership trainees	3.1	Programme's results: leadership competencies
	3.2	Support provided by the programme
	3.3	Influencing factors for trainees learning process

Integration of themes		
1.2 & 1.3 & 1.4 & 3.2 & 3.3	1	Learning process of trainees
1.1 & 2.2 & 3.1	2	Leadership competencies
2.1 & 2.3	3	Impact of leadership in practice

> You are dragged into the negativity of network participants and I feel not able to stay positive and to change the network participants attitude. (CN 13, network I)

Network leaders identified support of their management and duo leadership as important facilitating factors for adequate leadership behaviour. Management support, which was sometimes lacking, enabled the leader to invest sufficient time for their network leadership tasks. Duo-network leadership was a facilitating factor because of the possibility to share the responsibility of the leadership with a colleague, to learn from the other's leadership competencies and to motivate each other when problems arose.

Impact of leadership in practice

Network members generally accepted the network leadership. Most of them stated that they observed improved communication and coordination within the network. They considered enthusiasm and decisiveness as the most important characteristics of network leaders. Adequate chairmanship and being able to involve different network participants were mentioned as desirable elements. Yet, participants also stated that some leaders lacked decisiveness and assertiveness, or leaders were perceived to be too decisive, with network participants insufficiently included in these decisions.

> Eh … I think that (name GP) and (name DC) (=a network leader-duo) are very good together. But sometimes I feel a bit of an outsider. (CN 27, network O)

Some participants stated that they needed more clarity on the network leader's role, as this was a new phenomenon.

Both network leaders and network members claimed that the network leader contributed to improvements in the network's quality of care. However, the continuity of leadership appeared to be an important factor for successful quality improvement.

> The practice nurse (leadership trainee) is increasingly taking charge. As a network, we now deliver better care than before. For example, we improved our diagnostic process for dementia patients drastically. (GP 26, network M)

> Our network has a leader, but suppose that she will disappear. Then, I am curious what will happen next. We made a lot of improvements the past years. (CM 28, network P)

Table 3 Learning goals categorised into Leadership Practices Inventory subscales

Leadership Practices Inventory subscale	Goals, number (%)	Attained, number (%)	Partially attained, number (%)	Not attained, number (%)
Modelling the way	17 (34)	12 (70)	3 (18)	2 (12)
Inspiring a shared vision	9 (18)	6 (67)	3 (33)	0
Challenging the process	10 (20)	5 (50)	4 (40)	1 (10)
Enabling others to act	9 (18)	4 (44)	4 (44)	1 (12)
Encouraging the heart	5 (10)	2 (40)	3 (60)	0
Total	50 (100)	29 (58)	17 (34)	4 (8)

Some network leaders confirmed the importance of continuity of leadership in their recognition that to accomplish transition towards networked care sufficient time was needed. This recognition and perseverance ultimately led them to achieve the desired results in dementia care.

> I noticed we can help each other a lot. We are like two diesel trains, we keep on going and look what we have achieved now. (CN 19, network M)

DISCUSSION

This study explored the experiences, added value and successful elements of a 2-year clinical leadership programme that focused on supporting primary care professionals in a network leadership role. Coaching sessions facilitated a learning process regarding personal competencies, collaboration issues and role clarification. Group meetings focused on exercising transformational leadership behaviour and facilitated the exchange of experiences. Most learning goals were aimed at personal competencies, such as clearly articulating one's own opinion and evaluating one's own progress. Collaboration-related learning goals were less addressed.

Three important themes were identified for clinical leadership support programmes: (1) practice-based learning: learning by doing and reflection through coaching; (2) peer support, learning through exchange of experiences and share leadership responsibilities and (3) context support, including managerial support and acceptance of network members.

The results of this study support the assumption that leadership is important for the implementation of integrated care model.[1] However, at the start of the programme, trainees appeared to be unaware of which leadership behaviour was needed. Also, at the start of the coaching sessions, several trainees positively assessed their own leadership behaviour, some had difficulties to express learning targets or stated they did not need support. During the programme, the recognition of leader's personal incompetence appeared through their experiences in the networks, the discussions within the coaching trajectories and meeting their peers in the group meetings. This phenomenon is consistent with the Four Stages of Learning theory, which suggests that individuals are initially unaware of their incompetence. After a process of recognition, individuals consciously acquire skills.[28]

One of the important prerequisites for adequate leadership behaviour mentioned was shared responsibility, leading a network as a duo (shared leadership). This preference may be due to the novelty of the network leader's role; in duos they were able to support each other. Another possible explanation is that the nurse professionals still have low levels of self-confidence compared with other medical professionals.[2] Similarly, low levels of empowerment in connection to clinical leadership behaviour were found in studies within hospitals.[29] Mutual support between clinical leaders in pairs may stimulate nurses' empowerment.

Furthermore, we found that the combination of personal coaching, group training and providing a learning environment in which network leadership can be practised step by step, was positively evaluated and contributed to leadership development according to network leaders and their network members. In other recent clinical leadership training programmes, for example, programmes by the British National Health Service, these elements are also included.[30] Some programmes use only one training element, for example, either group sessions,[31] or personal coaching,[32] and these studies also found positive results on leadership development. However, these programmes did not address leadership in an integrated care setting. We would suggest that a multifaceted intervention is necessary to sufficiently meet the complexity of the leadership tasks in an integrated setting.

Strengths and limitations

This study is one of the first that evaluated leadership development in a primary care setting and adds new knowledge on the role of clinical leadership in the implementation of integrated care and what kind of support these leaders need: practice-based learning, peer support and context support. Triangulation based on different qualitative data sources, for example, network leaders and network members, ensured reliability and validity of the results. The qualitative data collection and analysis provides in-depth insights into the way the network leaders dealt with the challenges of performing their connecting role in the networks. A limitation of the study is that only individually perceived leadership competencies were reported and neither actual leadership behaviour nor the leaders' interprofessional competencies were included. Moreover, because our sample was context specific, it is more difficult to generalise the results to a broad population and to other healthcare systems. We did not use a controlled design, which makes it impossible to draw strict evidence-based conclusions.

Recommendations

In a time of high prevalence of patients with chronic conditions and multimorbidity, investing in conditions to make integrated care arrangements successful is crucial. We appeal to primary healthcare organisations' management to create possibilities of support and training programmes that help professionals to further develop themselves in clinical leadership roles. These programmes ideally focus on relational and quality improvement abilities. Opportunities for professionals to perform clinical leadership roles in pairs may be created to assure exchange of ideas and experiences and stimulate empowerment. Healthcare organisations should make ample use of their role models: professionals that already give the good example. Give them room and use their experiences to inspire their colleagues and provide them with peer support. Next to that, when recruiting staff, selection on clinical leadership skills, next to pure clinical competencies, may be a fruitful strategy.

CONCLUSION

In sum, our study suggests that the DementiaNet leadership programme successfully contributes to effective clinical leadership in an integrated primary elderly care setting. As interprofessional work is becoming prominent, it is important that professionals show more awareness of what leadership in this setting constitutes. Further research that addresses the effectiveness of network leadership support on professionals is recommended, preferably in a larger sample. This new study may be followed by research that is aimed at examining the effects of leadership support for clinical leadership behaviour on the quality of integrated patient care.

Acknowledgements The authors would like to thank J de Blij (JdB, trainer, advisor) for his contribution to the development of the group training and for leading the focus group interview. We thank Miss Lizzy van der Horst (LvdH, research assistant), Miss Irma Maassen (IM, research assistant), Miss Anke Richters (AR, PhD) and Miss Dorien Oostra (DO, PhD student) for their efforts related to the qualitative analysis of the learning goals, interviews and focus group interview. The manuscript is based on a thesis published as: Nieuwboer MS. Interprofessional communication and clinical leadership in the development of network-bases primary care. Nijmegen: Radboud University, 2019.

Contributors MN, MvdM, MP were responsible for the study conception and design. MN and MP planned and organised the data collection. MN performed the data collection and analysis. MN and MP wrote the draft of the manuscript. MN was the lead author. MvdM, RvdS and MOR commented and edited drafts of the manuscript. MP and MOR were responsible for the content as the overall guarantors.

Funding This research was funded by Gieskes Strijbis Fonds. No grant number was attributed.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval The study protocol of the DementiaNet study was reviewed by the local medical ethics committee, and formal judgement was not required (protocol number: 2015–2053). Participants provided written consent for all qualitative data to be used for research purposes.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement No data are available. Data availability was not agreed on, before the start of this study.

ORCID iD

Minke Nieuwboer http://orcid.org/0000-0002-2193-4908

REFERENCES

1 Davy C, Bleasel J, Liu H, *et al*. Factors influencing the implementation of chronic care models: a systematic literature review. *BMC Fam Pract* 2015;16:102.
2 McInnes S, Peters K, Bonney A, *et al*. Understanding collaboration in general practice: a qualitative study. *Fam Pract* 2017;34:621–6.
3 Reeves S, Xyrichis A, Zwarenstein M. Teamwork, collaboration, coordination, and networking: why we need to distinguish between different types of interprofessional practice. *J Interprof Care* 2018;32:1–3.
4 Willcocks SG, Wibberley G. Exploring a shared leadership perspective for NHS doctors. *Leadersh Health Serv* 2015;28:345–55.
5 Dath D CM-K, Abbott C. *CanMEDS 2015: from manager to leader*. Ottawa, Canada: Canada TRCoPaSo, 2015.
6 Grol SM, Molleman GRM, Kuijpers A, *et al*. The role of the general practitioner in multidisciplinary teams: a qualitative study in elderly care. *BMC Fam Pract* 2018;19:40.
7 Wong CA, Cummings GG, Ducharme L. The relationship between nursing leadership and patient outcomes: a systematic review update. *J Nurs Manag* 2013;21:709–24.
8 Regan S, Laschinger HKS, Wong CA. The influence of empowerment, authentic leadership, and professional practice environments on nurses' perceived interprofessional collaboration. *J Nurs Manag* 2016;24:E54–61.
9 Flodgren G, O'Brien MA, Parmelli E, *et al*. Local opinion leaders: effects on professional practice and healthcare outcomes. *Cochrane Database Syst Rev* 2019;6:Cd000125.
10 Iliffe S, Waugh A, Poole M, *et al*. The effectiveness of collaborative care for people with memory problems in primary care: results of the CAREDEM case management modelling and feasibility study. *Health Technol Assess* 2014;18:1–148.
11 Nieuwboer MS, van der Sande R, van der Marck MA, *et al*. Clinical leadership and integrated primary care: a systematic literature review. *Eur J Gen Pract* 2019;25:1–12.
12 Elliott N, Begley C, Sheaf G, *et al*. Barriers and enablers to advanced practitioners' ability to enact their leadership role: a scoping review. *Int J Nurs Stud* 2016;60:24–45.
13 Holm AL, Severinsson E. Effective nursing leadership of older persons in the community - a systematic review. *J Nurs Manag* 2014;22:211–24.
14 Nieuwboer MS, Richters A, van der Marck MA. Triple aim improvement for individuals, services and society in dementia care: The DementiaNet collaborative care approach. *Z Gerontol Geriatr* 2017;50:78–83.
15 Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007;19:349–57.
16 West M, Armit K, Loewenthal L. *Leadership and leadership development in healthcare: the evidence base*. London: Faculty of Medical Leadership and Management, 2015.
17 Brewer ML, Flavell HL, Trede F, *et al*. A scoping review to understand "leadership" in interprofessional education and practice. *J Interprof Care* 2016;30:408–15.
18 Papworth MA, Milne D, Boak G. An exploratory content analysis of situational leadership. *J Manag Dev* 2009;28:593–606.
19 Ross S. A conceptual model for understanding the process of self-leadership development and action-steps to promote personal leadership development. *J Manag Dev* 2014;33:299–323.
20 Healthcare leadership model. Available: https://www.leadershipacademy.nhs.uk/resources/healthcare -leadership-model/ [Accessed 26 Mar 2021].
21 Alleyne J, Jumaa MO. Building the capacity for evidence-based clinical nursing leadership: the role of executive co-coaching and group clinical supervision for quality patient services. *J Nurs Manag* 2007;15:230–43.
22 Bitton A, Ellner A, Pabo E, *et al*. The Harvard medical school academic innovations collaborative: transforming primary care practice and education. *Acad Med* 2014;89:1239–44.
23 Martin JS, McCormack B, Fitzsimons D, *et al*. Evaluation of a clinical leadership programme for nurse leaders. *J Nurs Manag* 2012;20:72–80.
24 Interprofessioneel leren. Available: https://www.radboudumc.nl/onderwijs/radboudumc-health-academy/interprofessioneel-leren [Accessed 26 Mar 2021].
25 Hammick M, Freeth D, Koppel I, *et al*. A best evidence systematic review of interprofessional education: BEME guide No. 9. *Med Teach* 2007;29:735–51.
26 Bass BM. Two decades of research and development in transformational leadership. *Eur J Work Organ Psychol* 1999;8:9–32.
27 Posner BZ, Kouzes JM. Development and validation of the leadership practices inventory. *Educ Psychol Meas* 1988;48:483–96.
28 Flower J. In the mush. *Physician Exec* 1999;25:64–6.
29 Connolly M, Jacobs S, Scott K. Clinical leadership, structural empowerment and psychological empowerment of registered nurses working in an emergency department. *J Nurs Manag* 2018;26:881–7.
30 Cohen D, Vlaev I, McMahon L, *et al*. The Crucible simulation: behavioral simulation improves clinical leadership skills and understanding of complex health policy change. *Health Care Manage Rev* 2019;44:246–55.
31 Fitzpatrick JJ, Modic MB, Van Dyk J, *et al*. A leadership education and development program for clinical nurses. *J Nurs Adm* 2016;46:561–5.
32 Cable S, Graham E. "Leading Better Care": An evaluation of an accelerated coaching intervention for clinical nursing leadership development. *J Nurs Manag* 2018;26:605–12.