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Inter-organisational collaboration in palliative care trajectories for nursing home residents: a nation-wide mixed methods study among key persons

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ABSTRACT

Introduction: Multiple care organisations, such as home care services, nursing homes and hospitals, are responsible for providing an appropriate response to the palliative care needs of older people admitted into long-term care facilities. Integrated palliative care aims to provide seamless and continuous care. A possible organisational strategy to help realise integrated palliative care for this population is to create a network in which these organisations collaborate. The aim is to analyse the collaboration processes of the various organisations involved in providing palliative care to nursing home residents.

Method: A sequential mixed-methods study, including a survey sent to 502 participants to evaluate the collaboration between home and residential care, and between hospital and residential care, and additionally three focus group interviews involving a purposive selection among the survey participants. Participants are key persons from the nursing homes, hospitals and home care organisations that are part of the 15 Flemish palliative care networks dispersed throughout the region of Flanders, Belgium.

Results: Survey data was gathered from 308 key persons (response rate: 61%), and 16 people participated in three focus group interviews. Interpersonal dimensions of collaboration are rated higher than structural dimensions. This effect is statistically significant. Qualitative analyses identified guidelines, education, and information-transfer as structural challenges. Additionally, for further development members should become acquainted and the network should prioritise the establishment of a communication infrastructure, shared leadership support and formalisation.

Discussion: The insights of key persons suggest the need for further structuration and can serve as a guideline for interventions directed at improving inter-organisational collaboration in palliative care trajectories for nursing home residents.

Key words (4 - 8 words): Frail Elderly, Long-Term Care, Palliative Care, Continuity of Care, Intersectoral Collaboration

INTRODUCTION

Due to the ageing baby boomer generation and the ensuing improvements with regard to lifestyle and healthcare the proportion of older persons (> 65 years old) making up the total population has increased considerably^{1, 2}. Although most older people live in the community, a substantial number of these older persons moved to residential care settings³. There is a high prevalence of chronic conditions and comorbidity among nursing home residents, resulting in a high degree of dependency and mortality⁴⁻⁷. Most of these persons receive assistance from informal and formal caregivers before moving into a nursing home. Therefore, continuity of care is important^{7, 8}. More than half of nursing home residents die within two years after admission⁹. Nursing homes liaise with a diverse set of community services, such as general practitioners and specialist doctors, nurses and paramedics from private, public and voluntary organisations to support palliative care¹⁰. The limited number of existing studies on collaboration between nursing homes and other services in the provision of palliative care show that this support has generally been variable, reactive and focused on cancer care¹¹⁻¹³. In the period between admission and death, residents are frequently transferred to hospital, particularly at the end of their lives¹⁴⁻¹⁸. Hence, multiple care providers from organisations such as home care services, nursing homes and hospitals are responsible for responding adequately to the palliative care needs of older persons who are admitted to a nursing home. This implies a seamless and continuous care process¹⁹.

Integrated palliative care is *'bringing together administrative, organisational, clinical and service aspects to realise continuity of palliative care between all actors involved'*¹⁹⁻²². It entails a set of strategies on different levels^{23, 24}. A network, which is a specific form of inter-organisational collaboration in which three or more organisations work together towards a common goal, is a type of strategy directed at realising integrated care on an organisational level^{24, 25}. Palliative care networks, which include palliative care teams, home care organisations, hospitals, nursing homes, and other organisations, have been authorised by the governments of many member countries of the Organisation for Economic Co-operation and Development (OECD)²⁶⁻²⁸.

Although network structures can be formalised under government mandates, this does not necessarily lead to successful inter-organisational collaboration^{25, 29}. Collaboration is a complex process in which *autonomous actors interact through formal and informal negotiation, jointly creating rules and structures governing their relationships and ways to act or decide on the issues that brought them together; it is a process involving shared norms and mutually beneficial interactions...*^{30, 31}. Several challenges are involved in this process, such as leadership and coordination, a lack of important organisational members to drive the collaboration forward, power imbalances, differing expectations, cultural differences and organisational governance, modes of communication, and interaction opportunities^{31, 32}. Specifically for the field of palliative care, a review on collaboration within the same organisational setting showed problems with information flow and communication³³. Few studies have investigated the inter-organisational collaborative process in palliative care networks and reported divergence in organisational routine, insufficient communication, transfer of patient information, and educational activities until now^{27, 29, 34, 35}.

To support palliative care integration for nursing home residents and their families, a robust insight and understanding is needed on the process elements of collaboration in networks in which long-term care facilities are embedded ¹⁹. The present study aims to gain insight into how key persons within these networks perceive the processes of collaboration among organisations providing palliative care for nursing home residents (nursing homes, home care services, hospitals). The two research questions addressed in the underlying study are: ‘How do key persons in palliative care networks evaluate inter-organisational collaboration for older people residing in nursing homes?’ and ‘What differences are there in the way in which collaboration between nursing homes – hospital care and nursing homes – and home care is evaluated?’.

88

89 METHODS

90 Design

91 A complementarity sequential mixed-methods approach was applied, using parallel samples ³⁶. Firstly, an
 92 online survey was distributed among key persons of the 15 Flemish palliative care networks. Secondly,
 93 survey results were discussed during subsequent focus groups interviews with some of the same participants.

94 Setting and participants

95 There are 15 palliative care networks active in Flanders (Belgium), covering the entire region. These
 96 networks are charged with facilitating collaboration among care services for palliative care (not limited to the
 97 specialised services) ³⁷. More information about Flemish palliative networks is provided in Box 1.

Box 1. Palliative care networks in Flanders, Belgium	
Goal	Support of the development of palliative care in a given region of Flanders. The objective is to ensure that patients can die in a dignified manner and in an environment in which they feel comfortable.
Number of networks	There have been 15 palliative networks throughout the whole of Flanders since 1996, which were still active in 2017.
The recognition and financial support of the palliative networks is regulated by law (The Flemish Government Decree of 3 May 1995 (Belgian Official Gazette 18/08/1995) and the Royal Decree of 19 June 1997 (Belgian Official Gazette 28/06/1997))	<p>Criteria/conditions</p> <ul style="list-style-type: none"> Only one network receives funding in the given region. The network strives to form a balanced representation of intra and intermural palliative services and functions in palliative care within the organisational structure Collaboration is set up with a specialised home care team in palliative care (MBE) that supports palliative care at home. A palliative network and/or partnership is accredited for a maximum of four years. This accreditation can be extended for a period of four years, <p>Responsibilities</p> <ul style="list-style-type: none"> To give the general public information about the available palliative care services and possibilities in the respective region To collaborate with the various partners in the respective regions and to promote collaboration between primary care organisations (general practitioners, home nurses, social workers, physical therapists, et cetera), nursing homes, hospital care, palliative units, and more specific care organisations (organisations supporting volunteers, informal caregivers and family members) To educate and train care givers, family members and other persons involved in the provision of palliative care To support and organise volunteering in palliative care To collect data of palliative care services in the relevant region
Governance structure	In order to coordinate and control the joint action of members across the network as a whole, a team with a secretariat, a psychologist (0.5 FTE) and a network coordinator (1 FTE) is established for each of the 15 palliative networks. This form of governance structure is labelled a Network Administrative Organisation (NAO).
Annual budget	Accredited palliative networks are eligible for a grant amounting to 7,707.54 euros per 60,000 residents reached at maximum on an annual basis. This amount is subject to annual indexation as from 1 January 2007.

98

99 Participants are key persons from nursing homes, hospitals, and home care organisations in each of the 15
 100 networks. A key person is someone who (1) is part of the palliative care network, (2) is informed about the
 101 inter-organisational collaboration within the network, and (3) attends network meetings. In this way, a
 102 population of persons who have insight into the complex phenomenon of inter-organisational collaboration is
 103 defined. The network coordinators defined a list-based sampling frame by identifying key persons fulfilling
 104 the criteria mentioned above³⁸. Sequential mixed methods sampling was used, which included both
 105 probability and purposive sampling strategies³⁹. Firstly, all listed key persons were invited by email to
 106 participate in the survey. To generate a representative sample of the population and to complement the list-
 107 based sampling frame, snowball sampling was used to recruit key persons not identified by the coordinator.
 108 This was done by asking participants to share contacts that met the definition of a “key person” at the end of
 109 the questionnaire. These persons were also invited by email. The majority of the 502 invited key persons

worked in nursing homes (302), while 105 worked in home care and 90 in hospital care. Secondly, all participants who completed the questionnaire were invited to participate in a focus group interview.

Data collection & analysis

Phase 1: survey research

A questionnaire operationalising “*the structuration model of collaboration*” was developed and adjusted in a previous study⁴⁰. The model takes the structural and interpersonal levels of collaboration into account, and operationalises these in ten aspects (see Table 1)⁴¹⁻⁴³. The survey assesses the degree of collaboration between nursing homes and home care (1), and between nursing homes and hospital care (2). It was distributed online among 502 key persons by email in October 2016. Data was collected until January 2017. For each type of collaboration, participants were asked to evaluate aspects in their network on a 5-point Likert scale (in which 1 corresponds to the lowest degree of collaboration and 5 to the highest). Demographic information was also included. Mean scores are presented using a spiderweb diagram (see Figure 1). Repeated measures analysis of variance was performed with SPSS 11 (significance level $p < .05$).

Table 1.
The four dimensions of the structuration model of collaboration processes and their operationalisation

Structural dimensions	
Shared goals and vision	Governance
The existence of common goals and their appropriation by the recognition of different motives and multiple allegiances, and diversity of definitions and expectations regarding collaboration	The leadership functions that support collaboration. Governance direction to and supports professionals as they implement innovation related to interprofessional and inter-organisational collaborative practices
Operationalisation	
Shared goals	Centrality
Client-centred orientation vs. other allegiances	Shared leadership
	Support for innovation
	Connectivity
Interpersonal dimensions	
Internalisation	Formalization
Awareness by professionals of their interdependencies and the importance of managing them, and which translates into a sense of belonging, knowledge of each other's values, and discipline and trust	The extent to which documented procedures that communicate outputs and behaviours exist and are being used. Formalisation clarifies expectations and responsibilities
Operationalisation	
Mutual knowledge	Tools
Trust	Information exchange

Adapted from “A model of typology of collaboration between professionals in healthcare organisations”, by D’Amour, D. et al., 2008, *BMC Health Services Research*, 8, 2

Phase 2: focus group interviews

Each focus group interview lasted two hours, was audiotaped, and was led by two researchers, in which A.S. acted as a facilitator and S.H. took notes. The study was briefly introduced by a moderator. At the start of each focus group interview participants were given a personalised document that showed the median scores on each aspect of collaboration for their own network, along with the general scores across the various networks. The discussion was initiated by asking two questions: ‘Comparing the results of your network with the average score, what are your most important remarks or thoughts?’, and ‘What are the main priorities for ameliorating the functioning of the network in general, and for enhancing collaboration between home care and nursing homes and between hospitals and nursing homes?’.

The discussions were transcribed verbatim. Abductive reasoning was applied, in which the aspects of the structuration model of collaboration served as a predefined coding frame to interpret, label, and classify text^{44, 45}. All text units were coded with the ten aspects of collaboration (see Table 1). Two independent researchers coded the text, and discussed differences afterwards. Qualitative data analysis software was used (QRS NVivo 10).

According to the Medical Ethics Commission of Leuven University Hospital no ethical approval was needed for this study because no active involvement of patients or patient information was required.

RESULTS

Survey research

In total, survey data was gathered from 308 key persons (response rate of 502 key persons: 61.35%). Socio-demographic characteristics are shown in Table 2.

Table 2.
Socio-demographic characteristics of key persons of Flemish palliative care networks (l

<i>Variable</i>	
Mean age (SD, min-max) (yrs)	48.47 (8.79, 22-72)
Gender (percentage)	
Male	29.9
Female	70.1
Education (percentage)	
Secondary education	0.3
Associate degree (HB05)	9.1
Bachelor's degree	59.4
Master's degree	29.2
PhD	1.3
Function (percentage)	
Management	40.9
Professional caregiver	42.2
Other	16.9
Mean years of experience (SD, min-max) (yrs)	13.03 (8.77, 0.5-42)
Direct contact with patients (percentage)	
No contact	6.2
<25% contact	24.0
25% - 50% contact	17.5
50% - 75% contact	22.7
75% - 100%	29.5
Work setting (percentage)	
Nursing home	54.6
Home care	18.6
Hospital care	18.6
Palliative network	3.9
Other	4.2

For both types of collaboration, the aspects relating to the interpersonal level of collaboration are rated the highest (see *Figure 1*). The lowest mean scores are given to the structural aspects of collaboration, such as leadership and formalisation tools.

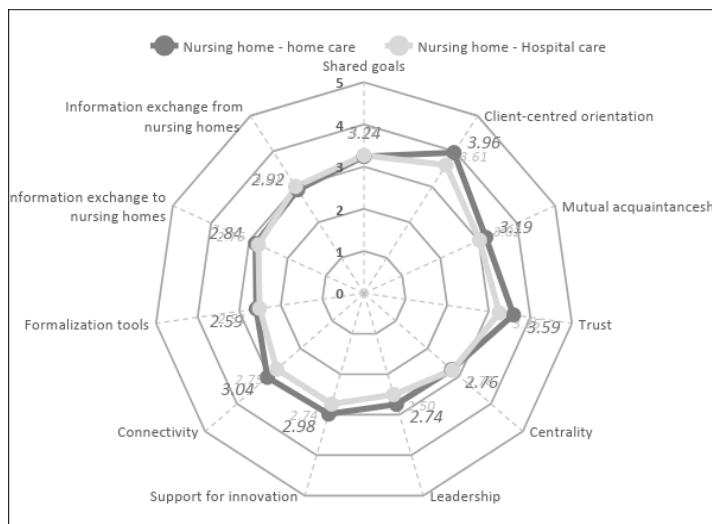


Figure 1. Average scores on aspects of collaboration by key persons for each type of cooperation

153

154 In Figure 2 the average scores of the 15 networks are presented for each aspect of collaboration. Preliminary

155 analyses showed no indication for a need for multilevel analysis (see additional information: preliminary

156 analyses). Hence, a Collaboration Type (2) x Dimension (4) repeated measures analysis of variance was used

157 to test differences between means for significance ($N = 279$, listwise deletion). When the assumption of

158 sphericity was violated, degrees of freedom were corrected using Greenhouse-Geisser estimates of

159 sphericity.

160 Figure 3 reveals that the ratings on the different dimensions depend on which collaboration type is

161 considered (statistically significant interaction effect), $F(2,778; 772,289) = 14,484, p < .001$. Furthermore,

162 this figure shows statistically significant differences in the mean ratings of the four different dimensions, F

163 $(2,849; 792,045) = 210,691, p < .001$. Also, collaboration between nursing homes and home care was rated

164 higher than collaboration between nursing homes and hospital care, $F(1, 278) = 15,605, p < .001$. This result

165 is statistically significant.

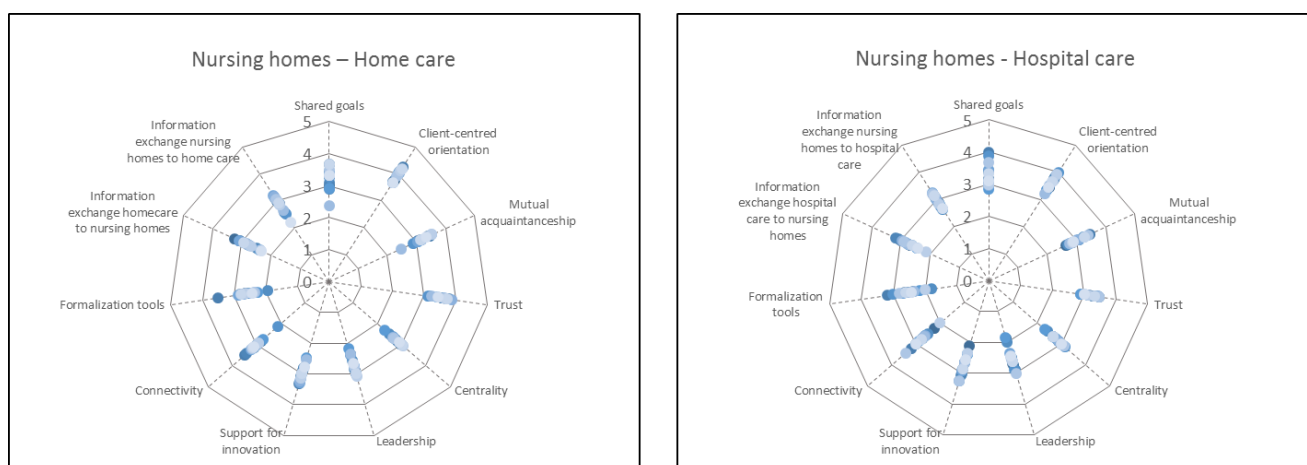


Figure 2. Average scores on aspects of collaboration for each palliative care network by key persons

An analysis of simple effects showed that dimensions of collaboration differ statistically significant between nursing home and home care collaboration, $F(2,793; 776,548) = 193,232, p < .001$, and nursing homes and hospital collaboration, $F(2,872; 798,372) = 138,550, p < .001$. Further contrast analysis shows that for the collaboration type nursing homes and home care all dimensions differ statistically significant, except for the dimensions formalisation and governance ($p < .001$). Shared goals and vision ($M = 3,64; SD = 0,047$) is rated higher than governance ($M = 2,89; SD = 0,05$) and formalisation ($M = 2,797; SD = 0,044$). Also internalisation ($M = 3,392; SD = 0,048$) is rated higher than governance ($M = 2,89; SD = 0,05$) and formalisation ($M = 2,797; SD = 0,044$). Thus, interpersonal dimensions differ statistically significant from structural dimensions. Even though the interpersonal dimensions differ statistically significant from each other, this is not true for the structural dimensions. We see the same pattern in collaboration between nursing homes and hospitals ($p < .001$). The interpersonal dimensions of collaboration (shared goals and vision, $M = 3,464, SD = 0,041$ and internalisation, $M = 3,152, SD = 0,042$) are rated higher than the structural dimensions (governance, $M = 2,712, SD = 0,43$ and formalisation, $M = 2,803, SD = 0,42$). This effect is statistically significant.

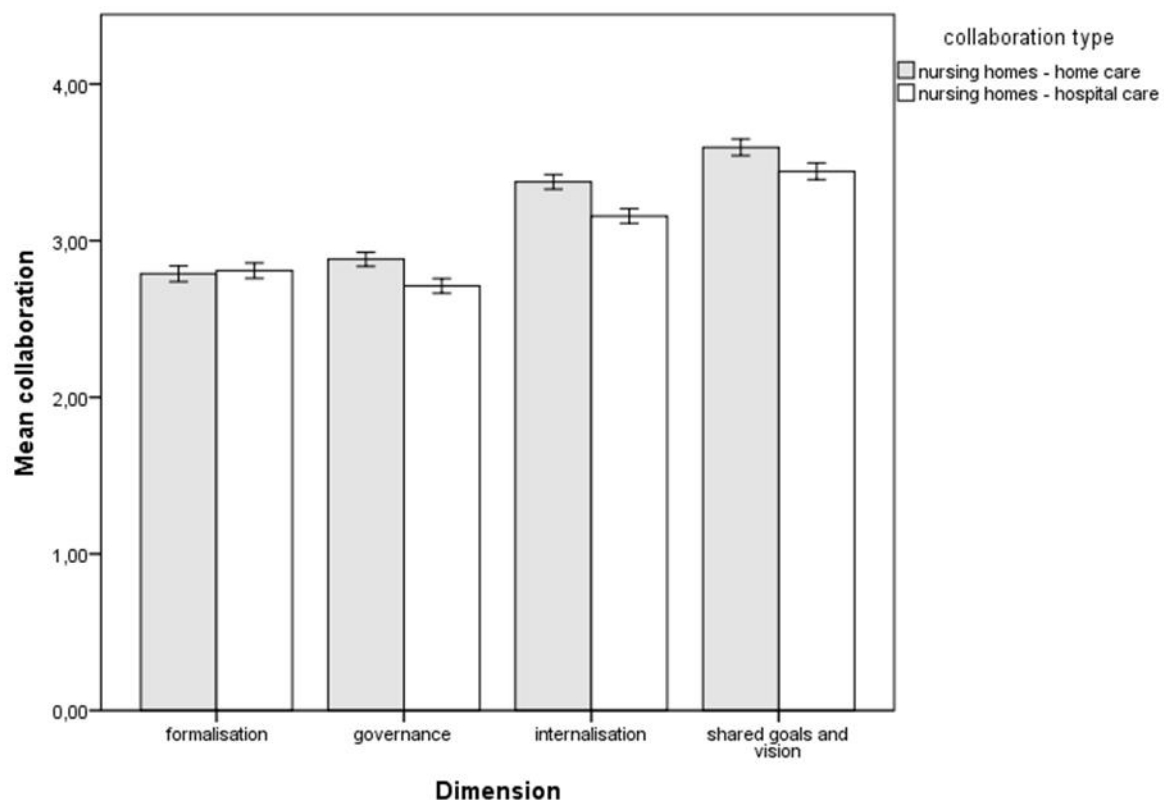


Figure 3. Mean differences in collaboration in function of 'dimension' and 'cooperation type'

Focus group interviews (N=16)

In Table 3 the frequency with which an aspect of collaboration was mentioned during a focus group interview is represented, along with example quotes. The aspects of inter-organisational collaboration are used to describe challenges in inter-organisational collaboration and priorities that should be set to enhance inter-organisational collaboration.

Challenges in inter-organisational collaboration

Key persons (KP) state that in a palliative care culture attention is not only given to physical needs, but also to care needs of a spiritual, social, or psychological nature as soon as patients are diagnosed with an incurable illness. They stated that a palliative attitude requires listening, showing respect, truthful interaction, and providing comfort. Although respondents feel that different organisations approach each other based upon mutual interests and the perceived need of collaboration in tackling problems in palliative care, they find that not all care professionals share this palliative care attitude. They believe that there is still a misconception among professionals and patients that palliative care is “giving up and doing nothing” when curative care fails.

KP 1: “Palliative’ is a sensitive issue. 10 years ago I thought that the negative connotation of the term would improve, but it doesn’t [improve]. Only people who are familiar with palliative care are able to deal with it in a good way.”

Furthermore, they agree that collaborative activities are insufficiently guided or organised by central guidelines that apply for all organisations.

KP 2: “You ask me about intersectoral meetings, but even in one setting the staff responsible of palliative care and the staff responsible for dementia care do not work together. The reason for this is the policy maintained by the nursing home. Collaboration like this should be directed by the managing board of the nursing home.”

They consider two ‘institutes’ to be responsible for providing central guidelines: the palliative care network, and – in a broader perspective – the Belgian government. According to the respondents, the *government* provides insufficient resources for the successful functioning of the network. Also, legislation regarding professional confidentiality, patient rights, and privacy complicates information sharing when a patient is transferred between settings. Furthermore, respondents find that legal rules concerning palliative care lay too much responsibility and power into the hands of general practitioners and medical specialists. They coordinate and make decisions regarding the palliative treatment of patients. Respondents feel this hinders shared leadership.

KP 3: “To me, shared leadership means taking the lead in caring for the well-being of the palliative nursing home resident or the older palliative citizen. From a federal point of view, this person is the general practitioner. This model has been used to organise financing, administration, and legislation. So, in home and residential care, we need the general practitioner. Although I think this is a good model, it has led to situations in which leadership is not shared.”

When doctors take on a paternalistic attitude and/or lack knowledge or time, other partners involved in the care process do not have sufficient impact on decisions.

KP 2: “A problem to me is that certain doctors or specialists translate an advance care plan (ACP) into a Do Not Resuscitate code that is in contravention with the content of the ACP, without consulting or informing others. We discover this when the resident returns to the nursing home. This undermines our work and that of the general practitioner.”

This can lead to a loss of client-centred focus, when doctors do not take the wishes of the patient into consideration and continue to provide treatment on a curative basis.

KP 4: "When the resident or the resident's family say that enough is enough, meaning that they want palliative treatment, the doctor sometimes doesn't agree and still wants to treat the resident curatively. This concerns a minority of doctors, but still. This attitude can also be noted among specialists working in hospitals."

Respondents argue that innovation in palliative care is hampered by a lack of knowledge in doctors as well as patients.

KP 5: "I think that the general populace should have more knowledge about palliative care. I believe that raising awareness about this is a task of the palliative care network. They should empower patients and their families to take responsibility in a palliative situation, so that even the general practitioner has to concur with the patient's decision. At present, this responsibility lies too much with the care providers. Palliative care is still a taboo in the sense that it is equated with terminal care too frequently. This view is also held by general practitioners. Therefore, they sometimes think it is too early to start with palliative home care when the patient is not terminal. It is important to empower the patient from the network by expanding his knowledge, to raise awareness among the population. This also extends to advance care planning, because just signing papers at city hall is not sufficient."

Workshops, intervision, education, study groups, and suchlike are considered opportunities for people to get to know each other, share expertise, learn from each other, discuss problems with regard to collaboration, and form agreements. They regret that such events are rarely organised across different settings and that even if such events were to take place not all relevant organisations participate in them.

KP 6: "In our network, I see that there are several forums and/or media, but these exist separately for each kind of organisation: for hospitals, nursing homes, palliative units, et cetera."

Respondents put forward that participation demands precious work time, and consequently commitment from the organisations involved. According to the respondents, some home care and residential care organisations mainly focus on generating profit, or merely want to fulfil administrative prerequisites. Respondents agree that there is a lack of formalised collaboration, especially with respect to the initiation of an advanced care plan and the use of that plan in inter-organisational transfers.

Information exchange is seen as a weakness in inter-organisational collaboration with regard to palliative care. According to the respondents, the exchange of information depends on the availability of time, goodwill, and interest of doctors, legislation regarding patient rights and privacy, and the models used by the organisations involved (e.g. the Do Not Resuscitate code).

KP 7: "The transfer of information is impossible without agreements, procedures or care paths. In that case, we are surrendered to the goodwill of others for the exchange of information. Others who think it's important. Care personnel is so overburdened and the obligatory 'to do' list is so long that the transfer of information is impeded. So, mutual agreements are necessary."

Moreover, there is no uniform system of information sharing across organisations, which complicates the transfer of data.

259 ***Priorities to stimulate inter-organisational collaboration***

260 Mutual acquaintance is regarded by the respondents as a very important aspect of collaboration,
261 paving the way for trust, goodwill, mutual understanding, and better communication. It supports the
262 negotiation process in reaching formal agreements.

263 *KP 8: "I think that a well-functioning palliative network aims to promote good contact with all the organisations involved. When*
264 *personal bonds are created, the rest can find root."*

265 Furthermore, respondents discussed several responsibilities of the network. Firstly, they regarded the
266 establishment of an infrastructure for communication and connection between people of different
267 settings as an important task in which progress is to be made:

268 *KP 9: "To me, organising meetings between the various sectors is important so that each sector can discuss its difficulties concerning*
269 *various subjects. Mutual exchange on different domains, where expertise can be shared. This makes it possible to identify the*
270 *strengths and weaknesses of each sector."*

271 Secondly, the network should support and enhance shared leadership. To overcome power imbalances,
272 the network must unite members. Therefore, the coordinator should be '*diplomatic, neutral,*
273 *encouraging, and act as an agent between organisations*'. When different settings engage in shared
274 decision-making, this should be translated into formal agreements, e.g. in the case of transfers from
275 one setting to another. Thirdly, respondents highly value 'the formal sharing of good practices', and
276 believe that more formalisation can counter power imbalances. When guidelines are formalised,
277 palliative care will no longer depend upon the 'goodwill' of doctors and organisations. They propose
278 mandatory attendance at meetings, and the establishment of a palliative care quality indicator for
279 nursing homes. Lastly, education, awareness-raising among the population and support for
280 professional caregivers are seen as important network tasks.

Table 3.
Frequency and examples of coded text units per aspect of collaboration

Dimension: shared goals and vision	Amount of coded text units	Example quote	Dimension: governance	Amount of coded text units	Example quote
Shared goals	17	<i>"Palliative" is a sensitive issue. 10 years ago I thought that the negative connotation of the term would improve, but it doesn't [improve]. Only people who are familiar with palliative care are able to deal with it in a good way."</i>	Centrality	75	<i>"You ask me about intersectoral meetings, but even in one setting the staff responsible of palliative care and the staff responsible for dementia care do not work together. The reason for this is the policy maintained by the nursing home. Collaboration like this should be directed by the managing board of the nursing home."</i>
Client-centered orientation vs. other allegiances	12	<i>"When the resident or the resident's family say that enough is enough, meaning that they want palliative treatment, the doctor sometimes doesn't agree and still wants to treat the resident curatively. This concerns a minority of doctors, but still. This attitude can also be noted among specialists working in hospitals."</i>	Shared leadership	55	<i>"A problem to me is that certain doctors or specialists translate an advance care plan (ACP) into a Do Not Resuscitate code that is in contravention with the content of the ACP, without consulting or informing others. We discover this when the resident returns to the nursing home. This undermines our work and that of the general practitioner."</i>
					<i>"To me, shared leadership means taking the lead in caring for the well-being of the palliative nursing home resident or the older palliative citizen. From a federal point of view, this person is the general practitioner. This model has been used to organise financing, administration, and legislation. So, in home and residential care, we need the general practitioner. Although I think this is a good model, it has led to situations in which leadership is not shared."</i>
			Connectivity	53	<i>"In our network, I see that there are several forums and/or media, but these exist separately for each kind of organisation: for hospitals, nursing homes, palliative units, et cetera."</i>
			Support for innovation	24	<i>"I think that the general populace should have more knowledge about palliative care. I believe that raising awareness about this is a task of the palliative care network. They should empower patients and their families to take responsibility in a palliative situation, so that even the general practitioner has to concur with the patient's decision. At present, this responsibility lies too much with the care providers. Palliative care is still a taboo in the sense that it is equated with terminal care too frequently. This view is also held by general practitioners. Therefore, they sometimes think it is too early to start with palliative home care when the patient is not terminal. It is important to empower the patient from the network by expanding his knowledge, to raise awareness among the population. This also extends to advance care planning, because just signing papers at city hall is not sufficient."</i>
Dimension: internalisation	Amount of coded text units	Example quote	Dimension: formalization	Amount of coded text units	Example quote
Mutual knowledge	10	<i>"I think that a well-functioning palliative network aims to promote good contact with all the organisations involved. When personal bonds are created, the rest can find root."</i>	Information – exchange	36	<i>"The transfer of information is impossible without agreements, procedures or care paths. In that case, we are surrendered to the goodwill of others for the exchange of information. Others who think it's important. Care personnel is so overburdened and the obligatory 'to do' list is so long that the transfer of information is impeded. So, mutual agreements are necessary."</i>
Trust	1		Tools	30	<i>I think it is important to share good practices in a formal manner with each other</i> <i>Multidisciplinary [in the care of the older palliative person] should be formally organised</i>

DISCUSSION

The various aspects of inter-organisational collaboration were evaluated by key persons in a complementary mixed methods design. This evaluation is indicative for the degree of palliative care integration for nursing home residents. They emphasise several structural challenges, such as the need for central guidelines, training, formalised agreements, and a better transfer of palliative care information. The following priorities should be set by the palliative network: the creation of a communication infrastructure, shared leadership, formalised agreements, and joint training. Within the field of palliative care, previous studies also show a lack of knowledge about palliative care⁴⁶⁻⁴⁹ and of a standardised flow of patient information^{34, 46}. Furthermore, educational activities are seen as opportunities for care professionals to share their experiences and opinions, and for developing strategies for collaborative practice^{34, 49, 50}. The standardisation of shared-decision making has a positive influence on respecting patient wishes⁵¹. Although support for communication and leadership is often mentioned as an important factor to improve inter-organisational collaboration in other healthcare domains, the need for structural aspects of collaboration is not explicitly addressed⁵²⁻⁵⁵. As such, our findings may reflect the particular nature of inter-organisational collaboration in palliative care. The networks originate in an informal pioneer initiative. Our findings suggest that after 20 years, these networks still appear to rely on informal relationships. Research has revealed that the dominant strategy for developing a more integrated palliative care is based upon personal relations, shared values and trust in other countries as well⁴⁶. However, as suggested in other studies, we believe that the lack of a support structure for the collaboration process has implications on the delivery of services at the clinical level^{56, 57}. The results of this study can engender awareness among care practitioners and policy makers about challenges with regard to collaboration and culminate in targeted interventions to optimise palliative care integration.

Strengths of the study include the sequential mixed methods design in which qualitative data complements the quantitative results, yielding a rich evaluation of inter-organisational collaboration. The same overarching framework was used (see Table 1) for both methods and no contradictories in the data were found. The perspective of key persons is an important source of information on the challenges facing inter-organisational collaboration in Flemish palliative care networks, given that they participate in network meetings and therefore also operate on network level. Although we used different sample strategies and achieved a good response rate, there is a risk of non-response bias because we do not have adequate insight into the reasons for non-response.

In palliative care and several other healthcare domains, such as primary care, oncology, mental health care, et cetera. Specialised care networks are implemented as a strategy to break through the existing silos of the various organisations involved in this and to promote care integration³⁴. This study addresses the lack of research on the process of collaboration on inter-organisational level within the field of palliative care. The results can be used to develop effective strategies to promote inter-organisational collaboration in palliative care trajectories for nursing home residents.

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324 **Conflicts of interest**

325 The authors declare that there is no conflict of interest.

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