



OPEN ACCESS

Regional hospice and palliative care networks worldwide: scoping review

Hanna A A Röwer , Franziska A Herbst , Sven Schwabe

Institute for General Practice and Palliative Care, Hanover Medical School, Hanover, Germany

Correspondence to

Ms Hanna A A Röwer, Institute for General Practice and Palliative Care, Hanover Medical School, Hannover, Germany; roewer.hanna@mh-hannover.de

FAH and SS are joint senior authors.

Received 13 May 2024
Accepted 24 May 2024

ABSTRACT

Background Regional hospice and palliative care networks (RHPCNs) are increasingly being established to improve integrative care for patients with life-limiting illnesses. This scoping review aimed at identifying and synthesising international literature on RHPCNs, focusing on structures, outcomes, benefits, success factors and good practices.

Method Following Arksey and O'Malley's (2005) framework, a search of four electronic databases (CINAHL, Google Scholar, PubMed, Web of Science Core Collection) was conducted on 7 July 2023. Additionally, a manual search of reference lists of the identified articles was performed. Original research, qualification theses and descriptive reports on RHPCNs at a structural level were included.

Findings Two researchers analysed 777 article abstracts, screened 104 full texts and selected 24 articles. The included studies predominantly used qualitative designs. RHPCNs self-identify as local stakeholders, employ coordination offices and steering committees, and actively recruit network partners. Outcomes included improved professional practices, enhanced quality of care, increased patient utilisation of regional care offerings and improved patient transitions between care providers. Success factors included clear coordination, transparent communication, strategic planning and resource-securing strategies.

Conclusions The analysis identified key RHPCN success factors such as effective communication and adaptive leadership. Despite the need for further research, the findings emphasise RHPCNs' potential to improve palliative care and encourage policymaker support.

Other This scoping review is part of the research project HOPAN, which aims at assessing and analysing RHPCNs in Germany. The project is funded by the German Innovation Fund of the Federal Joint Committee (G-BA) (Grant N° 01VSF22042; funding period: 01/2023–12/2024).

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ The existing literature recognises regional hospice and palliative care networks (RHPCNs) as promising structural approaches for optimising end-of-life care. A comprehensive overview of RHPCN structures and benefits is lacking. A scoping review was considered appropriate to synthesise the literature and address research gaps.

WHAT THIS STUDY ADDS

⇒ The present review provided an understanding of RHPCNs' nuanced organisational structures, multifaceted outcomes and benefits (eg, improved professional practices, enhanced client services), and specific success factors (eg, transparent communication, strategic planning, resource securing strategies for sustainability).

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE, OR POLICY

⇒ The findings may guide efforts to refine and strengthen RHPCN structures and activities, thereby bolstering the ability of RHPCNs to provide effective and integrated end-of-life care. Policymakers and stakeholders may use the findings to improve the structural frameworks and funding conditions of RHPCNs.

INTRODUCTION

Effective palliative care requires collaboration and coordination among various healthcare professionals, organisations and community resources.^{1 2} Thus, the emergence of regional hospice and palliative care networks (RHPCNs) shows promise for enhancing the delivery of comprehensive and integrated care for patients with life-limiting illnesses at a structural level.

Rationale

An RHPCN is a structured collaborative system encompassing a wide array of stakeholders in a specific geographic region. RHPCNs bring together various



© Author(s) (or their employer(s)) 2024. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

To cite: Röwer HAA, Herbst FA, Schwabe S. *BMJ Supportive & Palliative Care* Epub ahead of print: [please include Day Month Year]. doi:10.1136/spcare-2024-004974

healthcare providers, organisations and services to address the complex and interconnected healthcare challenges faced by patients and communities. Unlike isolated cases of provider cooperation, RHPCNs collaborate at a structural level, with key stakeholders working together to improve healthcare delivery in palliative and hospice settings in their local region. RHPCNs aim at facilitating the sharing of expertise, resources and good practices, ultimately optimising the delivery of palliative care across different contexts, including hospitals, long-term care facilities and outpatient care settings.^{3 4}

Given the increasing implementation of RHPCNs,^{5–8} a comprehensive understanding of their structures, benefits and success factors is crucial to guide their continued development and refinement. A scoping review may help to achieve this by mapping and synthesising the literature on RHPCNs, exploring the range of evidence available to identify key themes and research gaps.

Objectives

The present scoping review aimed at generating an overview of the current knowledge and understanding of RHPCNs. Specifically, it addressed the following question: What is known about RHPCNs worldwide, with regard to (a) their structure, (b) their benefits and outcomes, and (c) their success factors and good practices?

Through this systematic scoping review, the study sought to inform both current and prospective RHPCN providers and funders about the state of knowledge on RHPCNs, while also drawing researchers' attention to gaps in the scientific data. Additionally, the results aimed at guiding the further development of RHPCNs through recommendations and evaluation frameworks to improve network maturity. The work comprised part of the broader HOPAN research project.⁹

METHODS

The research question necessitated a methodology that would offer a comprehensive overview of the existing literature. Scoping reviews are designed to capture a wide range of information, allowing for a broad and diverse collection of knowledge. Consequently, for the present study, a scoping review was preferred to a systematic review, as the research question called for an open, exploratory approach.

The scoping review followed the five-step methodological framework of Arksey and O'Malley¹⁰: (1) identifying the research question(s), (2) identifying the relevant studies, (3) selecting the studies, (4) charting the data, and (5) collecting, summarising and reporting the results.

Protocol and registration

The present scoping review has not been registered. To enable transparent documentation and to ensure

replicability, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews checklist¹¹ and a review protocol were used to both plan and conduct the review, as well as to guide the reporting of the results.

Eligibility criteria

Articles were assessed and selected on the basis of the study population and setting, as well as the publication language and article type. As RHPCNs are a rather recent phenomenon, the review search period was left open. Publications in both German and English were included in the review. English contributions were accepted in order to capture results from around the world, while German articles were included to generate additional insights into the authors' local context.

The review considered original research, scientific qualification theses and descriptive reports, as these types of publications typically follow rigorous methodologies, ensuring systematic and thorough investigation. Limiting the review to these types of publications also aimed at ensuring the credibility, validity and relevance of the included literature. Congress abstracts were excluded because these often lack sufficient detail on methodology and results to guarantee scientific quality.

Information sources

A comprehensive search of the electronic databases CINAHL, Google Scholar, PubMed and Web of Science Core Collection was conducted on 7 July 2023. These databases were selected to provide broad coverage of different disciplines. Additional databases were considered redundant or irrelevant. The compilation of full texts relied on the resources of the Hannover Medical School library.

Search strategy

The search strategy was developed by HR, with support from SvS and FH. The initial approach involved compiling a list of key articles deemed essential for answering the research question.^{5 12–16} The search strategy was then iteratively adjusted until it included all of the identified key articles. Additional grey literature was sought via Google Scholar. Reference lists of the full texts were hand-searched to identify further relevant studies.

The following search strategy was used in PubMed: (network[Tiab] OR networks[Tiab] OR networking[Tiab] AND rural[Tiab] OR regional[Tiab] OR local[Tiab] AND 'palliative care'[MeSH Terms] OR 'hospice care'[MeSH Terms] OR 'terminal care'[MeSH Terms] OR palliative[Tiab] OR 'terminally ill'[Tiab] OR 'terminal illness'[Tiab] OR 'terminal illnesses'[Tiab] OR 'terminal disease'[Tiab] OR 'terminal diseases'[Tiab] OR hospice[Tiab] OR hospices[Tiab] OR 'end of life'[Tiab] OR eol[Tiab] OR 'life's end'[Tiab] OR 'advanced care planning'[Tiab] OR 'advanced

illness'[Tiab] OR 'advanced illnesses'[Tiab] OR 'end stage disease'[Tiab] OR 'end stage illness'[Tiab] OR 'end stage illnesses'[Tiab] OR 'end stage diseases'[Tiab])

This search strategy was adapted for the other databases according to the individual database standards, and retested to ensure that key articles in the respective databases were identified.

Selection of sources of evidence

To be included in the review, studies were required to focus specifically on RHPCNs comprised of interdisciplinary providers in hospice and palliative care settings, working at a structural level. Additionally, studies were only included if their population was a regional healthcare network promoting collaboration and coordination among different healthcare service providers in a specific geographic region. These networks were required to involve care providers from various health professions and disciplines, such as physicians, nurses, social workers, therapists and other experts from outpatient and/or inpatient facilities. Studies focused solely on specific cases of collaboration between individual providers were excluded, given the research objective to analyse structurally operating networks, rather than isolated instances of collaborative effort. Finally, studies were included only if they related to hospice or palliative care settings (ie, networks addressing the care of individuals with life-limiting illnesses at the end-of-life and their families).

Data charting

All of the retrieved articles were imported into EndNote 20 reference management software (Clarivate, Philadelphia, USA). After screening for duplicates, two researchers (HR and SvS) independently reviewed the titles and abstracts of the remaining studies. Documentation of the main reasons for exclusion was used to reach consensus. Both researchers independently moved excluded studies to separate EndNote groups according to the exclusion criteria: (1) other population, (2) other research setting, (3) other publication type or (4) other language. Researcher decisions were subsequently compared. In the event of disagreement, consensus was sought. Where consensus was not reached, a third researcher (FH) was consulted for clarification. In the next step, two researchers (HR and SvS) independently reviewed the full text of the remaining studies, according to the aforementioned criteria.

Data items

All of the included articles provided information on at least one of the three aspects covered by the research question. The analysis of RHPCN structures relied on data regarding their organisation and operational framework. The examination of benefits and outcomes referred to studies describing the effects of RHPCNs on patients and their families, as well as local

professionals. Finally, the identification of RHPCN good practices and success factors relied on studies highlighting established and recognised methods and processes leading to optimal RHPCN conditions. Benefits, outcomes, good practices and success factors that were listed in articles as potentially significant but not actually observed were not included.

Critical appraisal of individual sources of evidence

No quality assessment of the reported evidence was conducted, due to the chosen form of review and the immediate need for evidence to support an ongoing research project.

Synthesis of results

Studies were included if they provided information on at least one of the following three topics: (1) structures, (2) benefits and outcomes, and (3) success factors and good practices. Information on these topics was compiled in a table.

RESULTS

The search resulted in 24 articles for the final review, including one article identified through a hand search.

Selection of sources of evidence

A total of 1089 records were identified from CINAHL (n=248), Google Scholar (n=30), PubMed (n=362) and Web of Science Core Collection (n=449) (see [figure 1](#)). Prior to the screening process, 313 duplicate records were removed, leaving 776 unique records for further assessment. During the screening phase, the abstracts and titles of each of the 776 records were reviewed for study eligibility. This resulted in the exclusion of 670 records for the following reasons: study population other than structural networks (n=644), study setting other than hospice and palliative care settings (n=23), other publication type (n=2), or published in a language other than English or German (n=2). Following the initial screening, the full texts of 105 potentially relevant articles were sought for retrieval. However, two of these articles could not be retrieved. Hence, a total of 103 full texts were assessed for eligibility. From these articles, further exclusions were made based on the following criteria: study population other than structural networks (n=51), study setting other than hospice and palliative care settings (n=2), other publication type (n=15), or published in a language other than English or German (n=12). A hand search of the reference lists of the chosen full texts resulted in the inclusion of one further paper. Ultimately, 24 studies were included in the systematic review.

Characteristics of sources of evidence

The included 24 studies focused on RHPCNs in different countries, with the majority (n=10) based in Canada.^{3 17–25} Five articles provided insights into

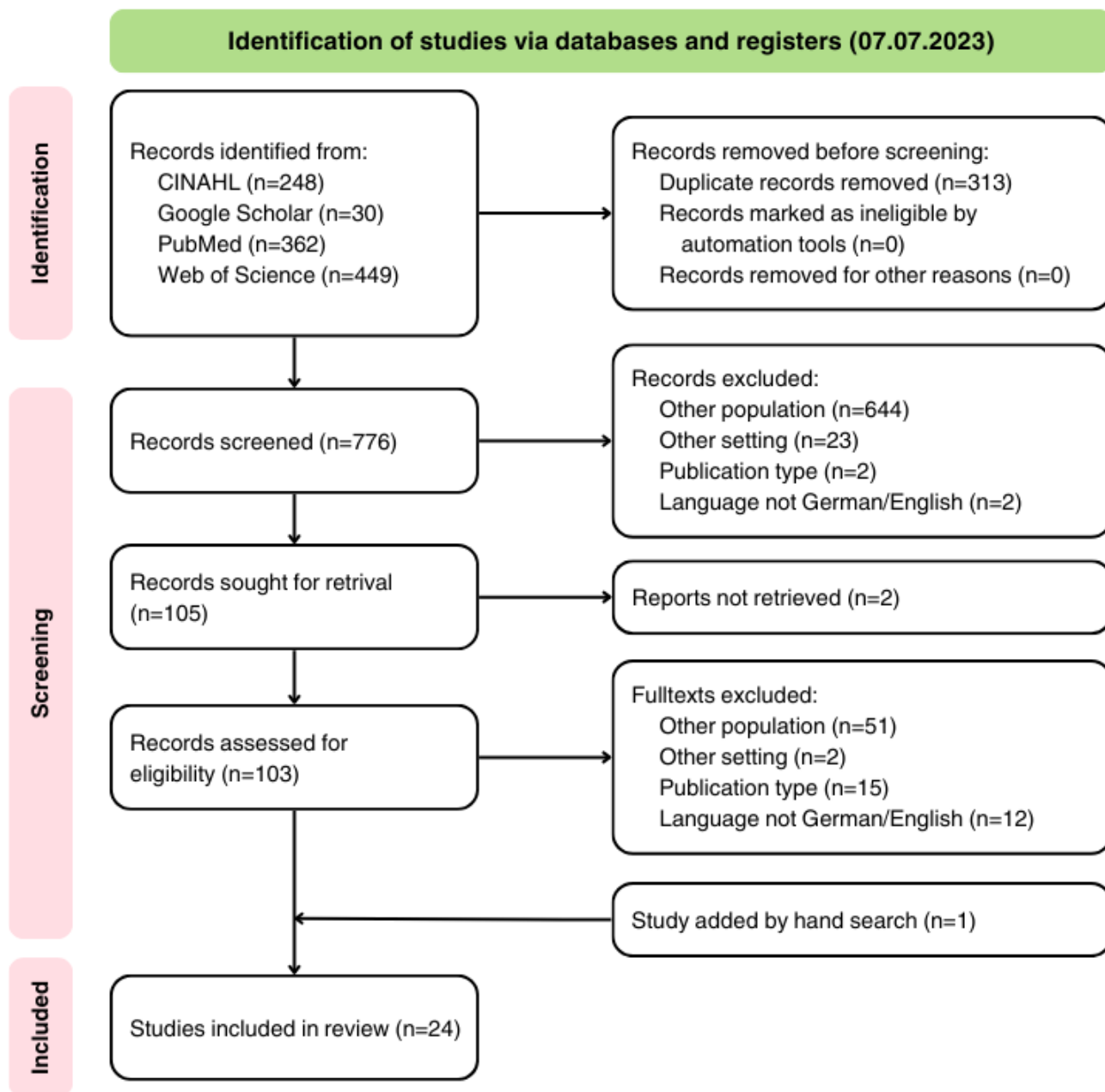


Figure 1 Flow diagram.

RHPCNs in different regions of Australia,^{16 26–29} five originated from Germany^{12–15 30} and two were based in the USA.^{31 32} One article explored the formation and evaluation of RHPCNs in the Netherlands.⁵ Finally, one article focused on the experiences of community nurses in RHPCNs based in the UK.⁸ The earliest study was published in 1980³¹ and only a small number of articles (n=6) were published in the last 10 years since the database search.^{12–15 24 30} These more recent studies primarily stemmed from Germany.^{12–15} Most articles were published in 2001,^{8 28} between 2005 and 2007,^{3 5 10 21 26 29} between 2009 and 2011,^{16–20 22} and in 2017^{12 13} (see figure 2).

Thirteen studies drew on qualitative research in the form of interviews and focus groups.^{3 5 8 12–14 19 21 22 26 27 29 30}

Document analysis was applied in five studies,^{3 5 16 18 19} mainly describing the establishment and structural composition of RHPCNs. While the use of surveys was noted in seven studies,^{5 12 14 18 20–22} only one study used a survey as their sole data source.²⁰ The number of network participants varied across studies, from 1^{15 19 23–25 27 30 32} to 13.²⁰ The number of interviewees in studies reporting this information ranged from 1¹⁷ to 20,¹⁹ with an average of 11. The number of focus group or workshop participants in studies reporting this data ranged from 8³² to 106,²⁸ with an average of 42. The number of survey participants in studies reporting this data ranged from 12²⁶ to 61,²⁰ with an average of 25. Additionally, two studies^{23 30} analysed a total of n=43 012 patient data sets.



Figure 2 Publications (full texts) by year and country of origin.

Results of individual sources of evidence

In the following tables present the principal data pertaining to the articles and their content in relation to the research questions (see tables 1–6).

RESULTS

The findings of the scoping review are presented in accordance with the three topics covered by the research question.

Structures

Seventeen articles^{5 8 12 13 15 17–20 22 23 25 28–32} addressed RHPCN structures. Taken together, these articles provided a comprehensive overview of two central RHPCN themes: network role and organisational structure. In more detail, 14 articles^{5 8 12 13 15 17 19 23 28–32} addressed network role and 14 articles^{5 8 12 13 15 17–20 25 29–32} addressed organisational structure.

Network role

RHPCNs were found to contribute to collaboration and the efficient delivery of patient-centred care. Some studies emphasised the central role played by RHPCNs in sustaining interprofessional collaboration and cooperation.^{17 21 30} Two studies described RHPCNs as a central point of information exchange between regional providers,^{25 29} while other studies showed that RHPCNs aim at improving the flow of information through centralised information platforms.¹⁹ Some articles positioned RHPCNs as strategic

management tools within health systems, describing them as multi-institutional systems for coordination or consolidation, involved in planning and evaluation, rather than policy.^{8 31} Several authors further indicated that RHPCNs act as catalysts for sustained collaboration,²⁰ engage in advocacy through coordination and programme evaluation,³² and expand to new target groups, fostering diverse partnerships.¹² The included studies varied in their descriptions of the extended functions of RHPCNs, which included establishing new provider facilities (eg, branch offices) or completely new regional offerings,¹⁵ and serving as catalysts for organisational and stakeholder organisation.^{23 28} Several authors also indicated that RHPCNs may play a governance role,¹⁹ highlighting diverse functions ranging from coordinating volunteers to exerting political influence,^{28 29} while also suggesting the importance of formal structures to facilitate commitment and alignment.

Overall, the included studies showed that RHPCNs facilitate interprofessional collaboration through team-based approaches emphasising ethical awareness.¹⁷ In addition, several authors argued that RHPCNs align with larger healthcare strategies, recognising their evolving nature.^{8 12 15}

Organisational structure

The included studies identified differing RHPCN organisational models, based on various forms of cooperation. These included cooperation

Table 1 Summarised characteristics of the included studies (part 1)

| Author (year); number in references | Publication type | Geographic location of study | Research aim | Method(s) of data collection | Main findings | Findings regarding structures | Findings regarding benefits and outcomes | Findings regarding success factors and good practices |
|--|------------------------------|------------------------------|--|---|---|--|---|---|
| Bainbridge <i>et al</i> (2010) ¹⁷ | Theoretical original article | Canada | Develop a theoretical framework | Empirical framework synthesis using Donabedian's structure-process-outcome model | Proposing a comprehensive framework for evaluating RHPcNs, emphasising collaboration, positive outcomes, readiness, client-centred care, and environmental and economic factors | <p>Role of network</p> <ul style="list-style-type: none"> ▶ Interprofessional collaboration ▶ Interprofessional network composition <p>Organisational structure and external factors</p> <ul style="list-style-type: none"> ▶ Influenced by environmental factors, community readiness and economic factors | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▶ Emphasis on a team-based approach ▶ Comprehensive pain management ▶ Grief counselling skills ▶ Effective relationships ▶ Ethical awareness <p>Client services benefits</p> <ul style="list-style-type: none"> ▶ Comprehensive care ▶ Effective pain management ▶ Grief counselling support ▶ Ethical awareness of professionals | <ul style="list-style-type: none"> ▶ Synergistic teams ▶ Adaptive leadership ▶ Community awareness ▶ Sustainability ▶ Holistic support ▶ Patient empowerment ▶ Resource sustainability ▶ Facility-based programmes ▶ Financial considerations ▶ Financial incentives ▶ Collaborative influence ▶ Complex dynamics ▶ Effective communication ▶ Care team composition ▶ Educational opportunities ▶ Incentives for quality care ▶ Leadership ▶ Role recognition ▶ Benchmarks |
| Bainbridge <i>et al</i> (2011) ¹⁸ | Case study | Canada | Study the structure, policies and functions of RHPcNs in the Hamilton Niagara Haldimand Brant local health integration network | Document review, survey of n=20 administrators and in-depth interview with network director | Providing insights into the establishment and development of RHPcNs, highlighting challenges, benefits and efforts to enhance palliative care | <p>Role of network</p> <ul style="list-style-type: none"> ▶ Governance <p>Organisational structure</p> <ul style="list-style-type: none"> ▶ Advisory committee and local community committees ▶ Approximately 100 organisations involved in palliative/end-of-life care ▶ Voluntary partnership agreements for commitment and alignment ▶ Offered education | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▶ Enhanced issue addressing ▶ New skills development ▶ Heightened public profile ▶ Increased expertise utilisation ▶ Acquisition of useful knowledge ▶ Enhanced public policy influence ▶ Development of valuable relationships ▶ Dedication to patient-centred care <p>Client services benefits</p> <ul style="list-style-type: none"> ▶ Greater impact ▶ Community contribution ▶ Additional financial support ▶ Improved public image ▶ Policy influence ▶ Patient-centred care | <ul style="list-style-type: none"> ▶ Defined leadership ▶ Commitment ▶ Resource distribution ▶ Clarification of 'turf wars' ▶ Political support ▶ Local action plans ▶ Agreement on principles of working (together), taking local circumstances into account |

Continued

Table 1 Continued

| Author (year); number in references | Publication type | Geographic location of study | Research aim | Method(s) of data collection | Main findings | Findings regarding structures | Findings regarding benefits and outcomes | Findings regarding success factors and good practices |
|--|---|------------------------------|---|--|--|--|---|---|
| Bainbridge (2011) ¹⁹ | Academic dissertation (incorporates 17 and 18) with embedded case study | Canada | Describe interprofessional collaboration and sustainability in a specific RHPNC and gain insights into its structure and barriers/facilitators to community palliative care | Combination of quantitative and qualitative methods to investigate system structure and the care process: empirical framework synthesis using Donabedian's structure-process-outcome mode, document review, survey of n=20 administrators and in-depth interview with n=1 network director | Discussing structural disparities, collaboration and the need for standardised information systems in RHPNCs, emphasising feedback and quality improvement | <p>Organisational structure</p> <ul style="list-style-type: none"> Structural disparities within the RHPNC, including inadequate funding and variable 24/7 palliative care capacity Lack of standardised information systems Variance in interorganisational cooperation among nursing agencies within the RHPNC | <p>Professional practice benefits</p> <ul style="list-style-type: none"> Emphasis on collaboration Consistent high quality <p>Client services benefits</p> <ul style="list-style-type: none"> Primary caregiver satisfaction Culture of collaboration | <ul style="list-style-type: none"> Emphasising feedback and quality improvement Palliative care education credentials Structural level improvements Specialist interdisciplinary palliative care teams |
| Bulkstra <i>et al</i> (2006) ²⁶ | Qualitative original article | Australia | Evaluate the impact of RHPNCs on palliative care in Toowoomba, Australia | Semistructured interviews with n=20 health professionals (1 nurse, 4 general practitioners, 3 health service managers, 11 registered nurses from various healthcare settings) | Examining health professionals' experiences with RHPNCs and addressing potential issues | No information available | <p>Professional practice benefits</p> <ul style="list-style-type: none"> Promotion of networking Valuable information Education and training <p>Client services benefits</p> <ul style="list-style-type: none"> Smoothen transitions Enhanced care continuity Improved access | <ul style="list-style-type: none"> Provision of timely information and support Health professional education Regular case conferencing Building of support and trust Areas for expansion and diversification Crucial role of nurses |

Continued

Table 1 Continued

| Author (year); number in references | Publication type | Geographic location of study | Research aim | Method(s) of data collection | Main findings | Findings regarding structures | Findings regarding benefits and outcomes | Findings regarding success factors and good practices |
|---|------------------------------|------------------------------|---|--|---|--|---|---|
| Cheng <i>et al</i> (2010) ²⁰ | Descriptive original article | Canada | Describe hospital-based RHPCNs in the region of Toronto, Canada | Description of n=12 hospitals, n=6 community volunteer hospices and residential homes, general practitioners and community care access centres offering hospice-palliative care in Toronto, Canada | Emphasising the significance of grassroots network movements in successful regional palliative care initiatives | Organisational structure ▲ Core network of organisations with decades of collaboration | Professional practice benefit ▲ Enhanced provider performance Client services benefits ▲ Smoother transitions ▲ Improved access | ▲ Establishment of linkages between organisations ▲ Networking tools |

RHPCNs, regional hospice and palliative care networks.

agreements,^{13 20} cooperation via coordination offices or steering committees,^{13 15} and cooperation with no formal agreement in place but the intention to share costs.³² This highlights the adaptive nature of these networks. A qualitative study of n=10 network coordinators described partnerships within RHPCNs as expansive, including hospitals, general practitioners, specialised doctors, outpatient care services, inpatient care homes, local authorities, pharmacies and aid suppliers.¹² One study found that some RHPCNs had approximately 100 member organisations.¹⁸ The authors of three other papers described that RHPCNs focus on expanding local educational services, adapting to external policy frameworks and accommodating different palliative care service models.^{15 23 28} One publication noted that local stakeholder-driven networks adopt inclusive structures, uniting leaders from numerous organisations.²¹

Another study described that RHPCN organisational structures vary in accordance with internal and external factors, such as structural disparities and funding challenges. Variations in interorganisational cooperation may pose further complexities.¹⁹ Two studies described RHPCNs as constantly evolving in response to government guidance.^{8 29} These same studies also described how the influence of external policy frameworks on service models^{8 29} can challenge structural uniformity. Furthermore, two studies reported structural inequalities within RHPCNs due to inadequate funding, variable palliative care capacity, and a lack of standardised information systems.^{5 19}

In summary, the investigated studies suggest that RHPCNs are remarkably adaptable to local contexts. Furthermore, they navigate challenges through diverse structures, promote interprofessional collaboration and contribute to strategic health priorities.

Outcomes and benefits

Eighteen articles^{3 5 8 13 15 17-23 25-27 30-32} addressed the outcomes and benefits of RHPCNs, underlining two main themes: professional practice benefits and client service benefits. Both of these categories were covered by all of the 18 articles, with consistent themes emerging.

Professional practice benefits

Various studies described that interdisciplinary collaboration and a team-based approach could improve coordination and communication at an interdisciplinary level.^{5 8 17 27 31} Some of the publications noted that the integration of comprehensive pain and bereavement management skills through networking could also contribute significantly to holistic patient care.^{3 17 26-28} Two studies based in Australia and Canada, respectively, identified that networking improved both ethical awareness and knowledge of legislation, promoting greater compliance with legislation and models of ethical healthcare.^{17 27} In

Table 2 Summarised characteristics of the included studies (part 2)

| | | | | | | | | |
|---|--------------------------------|-----------|--|---|---|---|--|---|
| Dudgeon <i>et al</i> (2007) ²¹ | Descriptive report | Canada | Discuss the development and impact of RHPCNs in Ontario, Canada | Qualitative surveys and focus groups (number unknown) to explore the development and impact of end-of-life care networks and the palliative care integration project | Documenting disparities in access to quality palliative care in Canada and the positive impact of end-of-life care networks | <p>Role of network</p> <ul style="list-style-type: none"> ▶ Network self-definition as a local stakeholder bringing other local stakeholders together to develop strategic priorities and improve care ▶ Leaders and interdisciplinary health experts from more than 25 organisations (nearly 100 individuals) | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▶ Enhanced personal connections ▶ Improved mutual engagement ▶ Increased transparency ▶ Conflict resolution ▶ Cooperative development <p>Client services benefits</p> <ul style="list-style-type: none"> ▶ Patient-centred care ▶ Diverse care options ▶ Tailored care | <ul style="list-style-type: none"> ▶ Interorganisational collaboration ▶ Standardised care practices ▶ Validated assessment tools ▶ Central project support ▶ Continuous evaluation ▶ Donation fund to pay for staff coordination |
| Dudgeon <i>et al</i> (2009) ²² | Mixed-methods original article | Canada | Develop an integrated palliative care model in a specific region, focusing on access and symptom management for the care of non-curative cancer patients | Workshops on development with n=55 participants from 30 organisations, on implementation with n=10 participants, and on evaluation with n=10 participants; evaluation through self-administered surveys with n=30 frontline healthcare professionals and n=2 focus groups with development working groups | Discussing the successful creation and expansion of RHPCNs across healthcare organisations | No information available | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▶ Improved pain management skills ▶ Standardised evaluation ▶ Knowledge enhancement in grief counselling ▶ Strengthened understanding of the need for a team-based approach in effective palliative care <p>Client services benefits</p> <ul style="list-style-type: none"> ▶ Enhanced accessibility ▶ Increased home and long-term care facility deaths ▶ Reduced emergency care visits ▶ Evidence-based practices ▶ Knowledge enhancement ▶ Enhanced communication between providers, patients and patient families | <ul style="list-style-type: none"> ▶ Positive collaboration attitude ▶ Personal and professional benefits ▶ Tailored resources ▶ Network expansion ▶ Model adoption ▶ Continuous quality improvement |
| Elsay & McIntyre (1996) ²⁷ | Qualitative original article | Australia | Evaluate RHPCN network formation and educate new partners on collaboration | Observation of n=8 team video conferences, semistructured interviews (number unknown) and focus groups (number unknown) | Identifying primary concerns among network members related to interpersonal relationships and communication during end-of-life care | No information available | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▶ Emphasis on team-based approach ▶ Comprehensive pain management ▶ Grief counselling and relationships ▶ Ethical understanding ▶ Legislative knowledge <p>Client services benefits</p> <ul style="list-style-type: none"> ▶ Comprehensive care ▶ Effective pain management ▶ Supportive relationships ▶ Ethical awareness ▶ Legal compliance | <ul style="list-style-type: none"> ▶ Shared commitment ▶ Competent leadership ▶ Non-hierarchical collaboration ▶ Flexibility and adaptability ▶ Long-term planning ▶ Regular face-to-face interaction ▶ Leadership support |

Continued

Table 2 Continued

| | | | | | | | | |
|----------------------------|--------------------|-----|---|---|--|---|---|--|
| Hatch (1980) ³¹ | Descriptive report | USA | Describe RHPCNs and their system benefits in east central Illinois, USA | Descriptive and analytical overview of RHPCNs using a classification structure for multihospital arrangements structure of multi-institutional hospice RHPCNs | Emphasising the collaborative advantages and structure of multi-institutional hospice RHPCNs | <p>Role of network</p> <ul style="list-style-type: none"> ▶ Network self-definition as a multi-institutional system for coordination or consolidating planning and evaluating rather than policing <p>Organisational structure</p> <ul style="list-style-type: none"> ▶ Managerial autonomy ▶ Offering of necessary services ▶ Network agreement ▶ Steering committee composed of each programme's medical director, project director, nurse coordinator and administrative representative | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▶ Shared support services ▶ Geographically integrated care levels ▶ Improved care quality ▶ Consultation support ▶ Enhanced management skills ▶ Shared educational resources ▶ Collaborative marketing ▶ Enhanced planning capacity ▶ Increased effectiveness <p>Client services benefits</p> <ul style="list-style-type: none"> ▶ Enhanced access ▶ Access to short-term services ▶ Better symptom management ▶ Increased home and long-term care facility deaths ▶ Reduced emergency visits ▶ Standardised evaluation ▶ Evidence-based practices ▶ Enhanced educational resources ▶ Increased effectiveness ▶ Improved care quality ▶ Facilitated recruitment and development ▶ Cost-effective hospice care | <p>Decentralised delivery</p> <ul style="list-style-type: none"> ▶ Coordination and evaluation ▶ Willingness to collaborate ▶ Effective leadership ▶ Mutually exclusive service areas ▶ Coordinating steering committee ▶ Expanding hospice services ▶ Continuing education ▶ Treatment protocols ▶ Evaluation methodology ▶ Community/public relations ▶ Financial reimbursement ▶ Information accessibility |
|----------------------------|--------------------|-----|---|---|--|---|---|--|

RHPCNs, regional hospice and palliative care networks.

Table 3 Summarised characteristics of the included studies (part 3)

| | | | | | | | | |
|---|-------------------------------|---------|--|---|--|---|---|---|
| Hatch (1981) ³² | Case study | USA | Evaluate an RHPCN 1 year after formation in east central Illinois, USA | Free assessment of RHPCN development following self-reported goals | Highlighting RHPCNs as platforms for collaboration and advocacy | <p>Role of network</p> <ul style="list-style-type: none"> ▲ Coordination and programme evaluation ▲ Steering committee ▲ Role of advocacy <p>Organisational structure</p> <ul style="list-style-type: none"> ▲ No fixed assets but intent to share costs ▲ Managerial autonomy ▲ Regular meetings ▲ Care protocols | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▲ Research methodologies ▲ Policy sharing ▲ Technical assistance ▲ Tension reduction ▲ Support for rural providers ▲ Promotion of care quality ▲ Network feasibility ▲ Resource for healthcare services <p>Client services benefits</p> <ul style="list-style-type: none"> ▲ Outreach to local organisations ▲ Improved access ▲ Quality care ▲ Mitigation of hospital competition ▲ Rural hospice support ▲ Accessibility ▲ Collaboration encouragement ▲ Resources for healthcare services | <ul style="list-style-type: none"> ▲ Commitment of members and administrators ▲ Promotion of public awareness ▲ Non-overlapping service areas ▲ Pooled expertise ▲ University collaboration ▲ Advocacy initiatives ▲ Community outreach ▲ Rural healthcare partnerships ▲ Holistic care emphasis ▲ Employee well-being programmes ▲ Collaborative resource utilisation |
| Herbst <i>et al</i> (2017a) ¹³ | Multimethods original article | Germany | Study RHPCNs in Bavaria, Germany, to understand their structures, functions and collaboration methods, and to derive recommendations for improvement | Semistructured interviews with n=10 network coordinators and one focus group with n=8 representatives from five RHPCNs, supplemented by an online survey of coordinators from n=12 networks | Covering the goals of RHPCNs and understanding the network partners, strategies and significance of formal contracts | <p>Role of network</p> <ul style="list-style-type: none"> ▲ Expansion to new target groups and attraction of new partners <p>Organisational structure</p> <ul style="list-style-type: none"> ▲ Types of partners in palliative care network: hospitals, general practitioners, specialised doctors, outpatient care services, inpatient care homes, local authorities, pharmacies, aid suppliers ▲ Highly diverse structures | <p>No information available</p> | <ul style="list-style-type: none"> ▲ Contractual regulations or informal co-operation on a personal level, as required |
| Herbst <i>et al</i> (2017b) ¹² | Qualitative original article | Germany | Systematically examine the conditions, methods, organisation and communication of RHPCNs in Bavaria, Germany | Qualitative study based on semistructured interviews with n=10 network coordinators and one focus group with n=8 representatives from five RHPCNs | Presenting supportive factors related to network organisation, communication and visibility | <p>Role of network</p> <ul style="list-style-type: none"> ▲ Administrative support ▲ Network coordination <p>Organisational structure</p> <ul style="list-style-type: none"> ▲ Cooperation agreements ▲ Coordination office ▲ Steering committee ▲ RHPCNs can take various forms and structures | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▲ Efficient resource utilisation ▲ Knowledge sharing <p>Client services benefits</p> <ul style="list-style-type: none"> ▲ Enhanced patient care ▲ Expanded access to services ▲ Community engagement ▲ Strengthened partnerships | <ul style="list-style-type: none"> ▲ Effective coordination ▲ Open communication ▲ Transparency and trust ▲ Flexibility and adaptability ▲ Community engagement ▲ Ongoing evaluation ▲ Strategic planning ▲ Capacity development |

Continued

Table 3 Continued

| | | | | | | | | |
|--|------------------------------|---------|---|--|---|--------------------------|--------------------------|---|
| Herbst <i>et al</i> (2019) ¹⁴ | Qualitative original article | Germany | Develop empirical recommendations for building and advancing RHPCNs in Bavaria, Germany | Semistructured status quo interviews (n=10) and n=7 interviews with n=10 participants about enabling/inhibiting factors), focus groups with n=8 participants, drafting of a recommendation, an online consensus survey questionnaire with n=20 participants, and a workshop with n=8 experts | Presenting approved recommendations for the establishment and development of RHPCNs | No information available | No information available | <ul style="list-style-type: none"> ▲ Clear definition of network goals and network roles ▲ Service area determination ▲ Integration strategies ▲ Low-threshold contacts ▲ Role coordination ▲ Cooperation principles ▲ Appointment of coordinators ▲ Steering committee consideration ▲ Evaluation of agreements ▲ Coordination of office discussion ▲ Effective communication ▲ Responsibility assignment ▲ Communication channels ▲ Meeting guidelines ▲ Reflection on partner cooperation ▲ Content definition ▲ Media selection ▲ Visibility/responsibility ▲ Public events ▲ Education programme development ▲ Financing plan ▲ Cost involvement ▲ Membership fees ▲ Event funding options ▲ Funding plan |
|--|------------------------------|---------|---|--|---|--------------------------|--------------------------|---|

RHPCNs, regional hospice and palliative care networks.

Table 4 Summarised characteristics of the included studies (part 4)

| | | | | | | | | |
|--|----------------------------------|-----------|---|---|--|--|---|---|
| Kaiser <i>et al</i> (2014) ¹⁵ | Case report | Germany | Address palliative care challenges in rural areas, focusing on a single RHPCN in Bavaria, Germany | Open report on challenges relating to care in rural areas, local public transport, networking of outpatient and inpatient facilities, long journeys, and the assurance of qualified support by presentation of possible solutions provided by the RHPCN | Discussing the implementation of oncological services and RHPCNs to improve cancer patient care in rural regions | <p>Role of network</p> <ul style="list-style-type: none"> ▶ Establishment of new provider facilities ▶ Strengthening of interdisciplinary cooperation ▶ Organisational structure ▶ Core organisation: oncological day clinic | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▶ Interdisciplinary collaboration ▶ Research and clinical trials ▶ Client services benefits ▶ Enhanced access to care ▶ Improved quality of life ▶ Patient satisfaction ▶ Cost-efficiency | <ul style="list-style-type: none"> ▶ Patient-centred care ▶ Interdisciplinary collaboration ▶ Innovative approach ▶ Training and education ▶ Research and clinical advancements ▶ Formation of network goals |
| Masso & Owen (2009) ¹⁶ | Report (review of an evaluation) | Australia | Review the evaluations of three RHPCNs, identifying goals, interventions, lessons and coordination themes | Examination of n=3 evaluations of rural palliative care programmes using a consistent methodology: reviewing original project documentation and identifying objectives, interventions and lessons learnt, with a focus on coordination and integration issues, and organising these into a spreadsheet to highlight commonalities and key themes across projects, including evaluations and programme assessments | Examining projects involving general practitioners in rural areas to improve care coordination and delivery | No information available | No information available | <ul style="list-style-type: none"> ▶ Governance structures ▶ Education programmes ▶ Multidisciplinary team meetings ▶ Information dissemination ▶ Formal arrangements ▶ Clinical assessment tools ▶ Communication emphasis |
| Mitchell & Price (2001) ¹⁸ | Descriptive report | Australia | Discuss information and standards in RHPCNs among general practitioners | Open report addressing challenges in maintaining palliative care skills amid low patient numbers and limited resources, and presenting a solution developed in the region | Identifying key elements for the development of successful services | <p>Role of network</p> <ul style="list-style-type: none"> ▶ RHPCN self-description as a 'non-clinical group with clinical members' ▶ Volunteer coordination | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▶ Focus on skill enhancement among general practitioners ▶ General practitioner-led autonomy ▶ Continuity of care ▶ New regional services ▶ Continuity initiatives ▶ Enhanced collaboration ▶ Client services benefits ▶ Enhanced care quality ▶ Smooth transitions ▶ Expanded regional services ▶ Improved access ▶ Collaboration and coordination ▶ Higher patient satisfaction | <ul style="list-style-type: none"> ▶ Regional strategic planning ▶ Fostering of a sense of community ownership ▶ Service integration ▶ Promotion of the central role of general practitioners ▶ Community involvement ▶ Professional volunteer organisation ▶ Word of mouth endorsement ▶ Community relations ▶ Nexus of fundraising and promotion ▶ Effective management structure ▶ Open visitation policy ▶ Functional bereavement support network ▶ Positive media relations |

Continued

Table 4 Continued

| | | | | | | | | |
|--|------------|--------|--------------------------------|---|---|--------------------------|--|--|
| Morin <i>et al</i> (2007) ³ | Case study | Canada | Explore the benefits of RHPCNs | Institutional document review, n=16 semidirected individual interviews, and n=16 focus groups with n=106 participants | Categorising the beneficial effects of projects promoting communication between professionals | No information available | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▲ Recognition of palliative care specificity ▲ Increased confidence in practice ▲ Improved planning and organisation ▲ Enhanced interdisciplinary collaboration <p>Client services benefits</p> <ul style="list-style-type: none"> ▲ Enhanced accessibility ▲ Improved continuity of care ▲ Informed population ▲ High satisfaction and enhanced safety ▲ Emergency ward avoidance | <ul style="list-style-type: none"> ▲ Impactful training ▲ Patient-centred approach ▲ Demystification of palliative care |
|--|------------|--------|--------------------------------|---|---|--------------------------|--|--|

RHPCNs, regional hospice and palliative care networks.

addition, some authors argued that networking could facilitate greater collaboration between healthcare professionals and ensure a consistently high quality of patient care.^{5 8 19–21 26} Professional practice was also described as being strengthened through the exchange of valuable information and further training within the network.^{26 28 32}

Studies also identified that improvements in symptom management and the introduction of regional standardised assessment procedures, both associated with RHPCNs, could significantly improve the effectiveness of patient care.^{20 22 23 30 31} Four studies described that networking could promote the efficient use of resources, knowledge sharing and interdisciplinary cooperation, enabling the optimal use of healthcare resources.^{13 15 23 30} In addition, three studies showed how the culture of collaboration fostered by RHPCNs, as evidenced by their greater transparency and promotion of effective conflict resolution, had a positive impact on primary caregiver satisfaction.^{5 19 21}

Client service benefits

In addition to the client benefits derived from the improved professional practice associated with RHPCNs, studies also identified a number of concrete benefits to local communities. As an example, six papers described that RHPCNs facilitate better communication and coordination among healthcare professionals, leading to improved access to healthcare services and continuity of care for their respective populations.^{5 13 15 19 21 23} In addition, two studies identified a reduction in emergency visits and the introduction of evidence-based practices in RHPCNs as a result of networking.^{22 31} Two further articles explained that bereavement support and strong ethical awareness among professionals may significantly contribute to the expansion of holistic end-of-life care offerings.¹⁷ This outcome could also be promoted by more effective pain management skills in RHPCNs.^{17 27} Studies also revealed that RHPCNs can increase public awareness and political influence with respect to local end-of-life issues. Increased public awareness of such issues could facilitate access and increase support from current or prospective funders.^{18 19 23 32}

Success factors and good practices

Twenty-four articles addressed RHPCN success factors and good practices. The articles strongly advocated for interdisciplinary collaboration and team-based approaches to improve patient care and coordination across healthcare providers.^{8 13 16–19 21 25} Six studies also highlighted effective leadership and governance structures as crucial to the success of RHPCNs, ensuring clear direction, commitment and the ability to navigate complex dynamics.^{8 13 16 17 19 21} Moreover, several authors argued that effective coordination is a crucial success factor for overall healthcare delivery, encompassing streamlined care coordination, standardised

Table 5 Summarised characteristics of the included studies (part 5)

| | | | | | | | | |
|--|--------------------------------|-------------|--|---|--|--|--|---|
| Vahedi Nikbakht-Van de sande (2005) ⁵ | Mixed-methods original article | Netherlands | Investigate the development, achievements and success factors of RHPCNs | Semistructured interviews with the coordinators of n=8 networks, supplemented by a questionnaire assessing the opinions and experiences of n=61 network participants | Highlighting projects that improve collaboration and palliative care quality through communication | <p>Role of network</p> <ul style="list-style-type: none"> Management at strategic, tactical and operational levels <p>Organisational structure</p> <ul style="list-style-type: none"> Participating organisations: hospitals, nursing homes, home care organisations and others Varied number of participating organisations, from a few to approximately 20 Formalised organisational structure with a leading role played by one person Collaboration agreement Cost sharing | <p>Professional practice benefits</p> <ul style="list-style-type: none"> Enhanced personal connections Exchange of knowledge and skills within the network Enhanced mutual engagement and collaboration Insight into available healthcare services Increased transparency Emphasis on patient-centred care Cooperative development Tailored care services Improved communication and conflict resolution <p>Client services benefits</p> <ul style="list-style-type: none"> Enhanced personal connections Satisfactory mutual engagement Improved insight into healthcare services Efficient communication and conflict resolution Development of specific care products | <ul style="list-style-type: none"> Mutual collaboration Steady funding Openness to critique Solidarity and unity Operational significance Project proposal development Initiative encouragement Involvement of policymakers Collective conditions Focus on operational level Formalised cooperation Decision-making speed |
| Pereira <i>et al</i> (2016) ²⁴ | Mixed-methods original article | Canada | Document the development of the first RHPCN in Ontario, Canada | Participatory approach involving more than n=26 health service providers, using their feedback through various methods and a transitional leadership group guiding the implementation of the regional programme | Describing the activities and role of the regional hospice and palliative care programme | <p>No information available</p> | <p>No information available</p> | <ul style="list-style-type: none"> Overcoming of resistance Leadership changes Funded full-time coordinator Communication strategies Oversight by interinstitutional competency-based board Addressing of funding challenges Political resilience Support and funding Community and stakeholder engagement Appreciative inquiry Change management Maintenance of momentum |
| Phillips <i>et al</i> (2006) ⁹ | Multimethods original article | Australia | Assess healthcare challenges in the mid-north coastal region of New South Wales and the advantages of RHPCNs | Eclectic literature review to analyse palliative care service delivery in regional Australia, focusing on the mid-north coastal region of New South Wales | Recognising palliative care as a fundamental right in Australia, addressing regional challenges and outlining population-based planning strategies for end-of-life care, to enhance capacity | <p>Role of network</p> <ul style="list-style-type: none"> Expansion of locally available education services <p>Organisational structure</p> <ul style="list-style-type: none"> Influenced by external policy frameworks Information systems and data collection Diversity of palliative care service models | <p>No information available</p> | <ul style="list-style-type: none"> Community support Collaborative approaches Favourable and supportive policy environment |

Continued

Table 5 Continued

| | | | | | | | |
|--|---------|--|--|---|---|---|--|
| Schmidt-Wolf <i>et al</i> (2013) ³⁰ | Germany | Evaluate n=12 pilot projects, including 1 RHPCN, to enhance outpatient palliative care | Project evaluation based on patient-related data from n=3239 patient records using HOPE ⁴¹ and MIDOS ⁴² , with a qualitative analysis of a focus group involving n=13 project team members from n=9 of 12 project partners | Acknowledging the adaptability of RHPCNs to local conditions and the importance of coordination | <p>Role of network</p> <ul style="list-style-type: none"> ▲ Role of coordination centres ▲ Organisational structure ▲ Diverse goals and structures ▲ Regional adaptation ▲ Professional and interdisciplinary collaboration ▲ Regular meetings and quality circles ▲ Financial models ▲ Patient and family involvement ▲ Documentation methods | <p>Professional practice benefits</p> <ul style="list-style-type: none"> ▲ Improved coordination and case management ▲ Trust and cooperation ▲ Networking and knowledge sharing ▲ Client services benefits ▲ Successful specialised outpatient palliative care contracts | <p>Effective coordination</p> <ul style="list-style-type: none"> ▲ Trust building ▲ Continued education and quality improvement ▲ Regional adaptation ▲ Clear documentation ▲ Contracts with health insurers |
|--|---------|--|--|---|---|---|--|

RHPCNs, regional hospice and palliative care networks.

practices and centralised capacities.^{13 15 20 21 30} Seven studies indicated that the establishment of robust networks and open communication are pivotal in facilitating collaboration, knowledge sharing and overall effectiveness in RHPCNs.^{8 13 15 17 22 26 30} Four studies identified transparency and trust as critical factors for fostering effective relationships between stakeholders, healthcare providers and the community, thereby increasing a network's impact.^{15 21 22 30} Flexibility and adaptability were also emphasised, in recognition of the dynamic nature of healthcare environments and the need for RHPCNs to evolve in response to changing circumstances.^{8 15 19 21}

Seven articles stressed the need for sustainable resource management, including financial considerations and incentives, to ensure long-term viability and effectiveness.^{5 8 17 18 22 30} In particular, sustainable healthcare practices, including efficient resource use, were highlighted as essential for the long-term success and impact of RHPCNs.^{15 17 22}

The provision of bereavement support was noted as an integral aspect of RHPCNs, underlining the importance of addressing the emotional and psychological needs of patients and their family caregivers.^{17 22 28} Various articles^{3 14 17-20 26 32} emphasised the importance of comprehensive patient care, including thorough pain management and bereavement support. In addition, four studies highlighted the implementation of patient-centred care, prioritising patient needs and preferences and ensuring more personalised and effective healthcare.^{8 14 18 25} Continuous quality improvement and rigorous evaluation processes were also advocated to ensure the continued success and effectiveness of RHPCNs in meeting the evolving needs of patients and communities.^{8 14 15 17 21 22 30} One study showed that the common language used within RHPCNs may help patients understand the procedures and implications across different settings, enabling them to make more informed decisions.²³

Seven studies identified education and training programmes as essential for healthcare professionals within these networks, promoting continuous learning, skills development, and the integration of innovative approaches, as well as professional confidence.^{14 15 17 26 28 29} In this context, collaborative resource utilisation was emphasised as an effective strategy, encouraging the pooling of expertise and resources to optimise service delivery and improve overall healthcare outcomes.^{26 28 32} One study showed that agreement over the sharing of medical aids (eg, diffusers, walking aids) across all RHPCN providers could simplify patient transfers between facilities.²³

Six studies recognised community engagement as another RHPCN success factor, emphasising public involvement in, awareness of, and support for healthcare initiatives.^{17 18 20 21 29 32} In this vein, community outreach and the promotion of public awareness were highlighted as key strategies for fostering community

Table 6 Summarised characteristics of the included studies (part 6)

| | | | | | | | | |
|--|--------------------------------|--------|--|--|---|--|---|--|
| Seow <i>et al</i> (2005) ²³ | Mixed-methods original article | Canada | Investigate changes in end-of-life home care in a region with a new, politically supported RHPCN | Quantitative analysis of patient care data from n=18 118 patients from the year before and n=21 655 patients from the first year of the new RHPCN in operation, and a qualitative survey among community care access centre directors (n=40), network directors (n=8), and directors of key stakeholder groups (n=2) | Increasing the usage of palliative care services (ie, total number of patients and number of consultations per person) | Role of network <ul style="list-style-type: none"> ▶ Catalyst to organise providers and stakeholders | Professional practice benefits <ul style="list-style-type: none"> ▶ Legitimation and validation of the importance of end-of-life care ▶ Increased commitment of key stakeholders to invest in a common goal of quality care ▶ Stronger collaborations and partnerships ▶ Move beyond communication to achieve real collaboration ▶ Breaking down of barriers between providers ▶ Increased knowledge and skills Client services benefits <ul style="list-style-type: none"> ▶ Raised awareness and recognition by a broad audience ▶ Increased/new care services and accessibility ▶ More integrative and interdisciplinary consultation teams ▶ Easier system navigation ▶ Greater consistency of care ▶ Improved pain management ▶ Better advance care planning ▶ Empowered decision-making | <ul style="list-style-type: none"> ▶ Development of shared priorities and targets ▶ Strategic planning ▶ Agreement on the comprehensive use of equipment to enable the transfer of patients with care demands using aids ▶ Common assessment tools ▶ Common language |
| Travis & Hunt (2001) ⁸ | Descriptive report | UK | Provide an overview of the development of, and challenges related to, supportive and palliative care networks in the UK, with a particular emphasis on cancer care | Descriptive and analytical overview of the subject matter by discussing various reports, plans and developments related to palliative care networks in the UK | Highlighting the evolving landscape of RHPCNs in the UK, emphasising their importance in delivering better care for cancer patients and the challenges involved in their development and implementation | Role of network <ul style="list-style-type: none"> ▶ RHPCNs as management arrangements between multidisciplinary teams Organisational structure <ul style="list-style-type: none"> ▶ Evolving nature of networks, from their initial formation to their adaptation in response to government guidance ▶ Vision of RHPCNs as part of the supportive care strategy of the National Health Service | Professional practice benefits <ul style="list-style-type: none"> ▶ Improved coordination of care ▶ Interdisciplinary collaboration ▶ Development of evidence-based guidance ▶ Integration of palliative care services ▶ Development of service standards Client service benefits <ul style="list-style-type: none"> ▶ High-quality care ▶ Cost-effective services through optimised resource allocation ▶ Equitable access to services ▶ Inclusion of stakeholders ▶ Supportive care services | <ul style="list-style-type: none"> ▶ Interdisciplinary collaboration ▶ Clear leadership and governance ▶ Development of evidence-based guidelines ▶ Equitable access and inclusivity ▶ Resource allocation and efficiency ▶ Patient-centred care ▶ Guidance and support from authorities ▶ Continuous evaluation and improvement ▶ Commitment from stakeholders ▶ Adaptability and flexibility ▶ Definition of palliative care ▶ Assessment of existing services |
| Zalot (1989) ²⁵ | Open report | Canada | Describe the development of an RHPCN by a task force of 16 local palliative care providers | Description of the Niagara District Health Council's planning efforts to develop a palliative care network model suitable for the Niagara Region of Southern Ontario, Canada | Stressing the balance of technical and collaborative elements in RHPCN planning | Organisational structure <ul style="list-style-type: none"> ▶ Hard elements: organisational structure and shared information platforms ▶ Soft elements: self-perceived cooperation and goals | <ul style="list-style-type: none"> ▶ No information available | <ul style="list-style-type: none"> ▶ Identification of necessary suppliers ▶ Consensus on network goals |

RHPCNs, regional hospice and palliative care networks.

involvement and understanding, while promoting the central role played by RHPCNs.^{29 31 32} One paper identified political support and advocacy as influential for shaping favourable policies and creating environments conducive to the effective operation of healthcare networks.¹⁷

DISCUSSION

Summary of the evidence

The results of the scoping review highlight the crucial role played by RHPCNs in fostering collaboration, enhancing patient care and contributing to the sustainability of the healthcare system. The identified success factors and good practices provide a roadmap for optimising the effectiveness and impact of RHPCNs in delivering quality, accessible and sustainable palliative care services to patients and communities in need. The geographical diversity of the studies—encompassing full texts from six countries across three continents, plus abstracts from seven other countries (including one from a fourth continent)—and nearly 40-year range of publication (ie, from 1980 to 2019), reflect the global importance and ongoing development of RHPCNs.

The findings can be compared with those of previous systematic reviews and meta-analyses on healthcare networks, particularly in terms of good practices and success factors. In line with the present review, these studies have underlined that healthcare networks are most effective when they have structural features that promote connection and communication, and when they are well managed with effective leadership.^{33–36} One scoping review identified success factors such as clearly defined responsibilities and tasks, alongside a coordinating position where possible. Although effective leadership emerged as key to network performance in the present scoping review and other studies of health networks,^{33–36} some studies have also shown that tensions can arise in healthcare networks between the moderating mechanisms of collaboration and control, due to the confluence of different structures, ways of working, and objectives.^{37 38} The simultaneous use and development of new structures, behaviours and goals has been suggested as a way to manage these tensions.³⁷ This approach may also be relevant to RHPCNs, though it was not explicitly identified in the present review.

The ability to connect with other stakeholders based on commonly agreed standards is essential for the collaborative delivery of patient-centred and cost-effective services in healthcare networks.³⁹ Findings from qualitative studies of healthcare networks³³ suggest that networks with access to adequate funding and effective leadership and governance, combined with effective communication strategies and trust-based collaborative relationships, exhibit greater quality of care and patient outcomes. This is consistent with the results of the present scoping review, which

identified intersections between good practices and success factors for healthcare networks in general, as well as those focused on end-of-life care.

Two systematic reviews on this topic have revealed some evidence that clinical networks can improve quality of care, network efficiency and patient outcomes,^{33 40} based on a small number of studies. The present scoping review aligned with these previous works, as most of the studies, it investigated on the benefits and outcomes of networks emphasised improved patient outcomes and greater network effectiveness. However, the subjective experiences of professionals and patients have rarely been considered in studies of general networks³³ or RHPCNs, more specifically (as shown by the present results).

Strengths and limitations

The present scoping review used a robust methodological framework based on Arksey and O'Malley,¹⁰ conducting a thorough search of multiple electronic databases (CINAHL, Google Scholar, PubMed, Web of Science) to ensure comprehensive coverage of the relevant literature. Clear inclusion criteria were established, focused on studies of networks in hospice and palliative care settings, including original research and reports of projects and initiatives. This ensured the relevance and applicability of the included studies. To minimise bias, two researchers independently reviewed abstracts and full texts to identify relevant articles. This transparent process helped to ensure the reliability of the review findings.

Overall, these strengths contribute to the credibility and reliability of the scoping review, making it a valuable resource for understanding the current landscape of RHPCNs and identifying areas for future research and practice.

At the same time, it is important to acknowledge certain limitations due to the inclusion criteria related to language. Some articles may have been excluded from the analysis because they were not available in the language(s) specified for the review. This language limitation may have led to the omission of valuable research and insights published in other languages. As a result, the findings and conclusions of this review may not fully represent the global landscape of RHPCNs.

It is also important to note the challenges involved in distinguishing between care and case networks, as many care structures work collaboratively or inter-professionally (eg, those funded by health insurance funds in Germany), without being active at a structural level. The types of networks included in the reviewed studies were not always clear. Thus, when the relevance of the network type was in doubt, the relevant article was excluded from the analysis. This may have influenced the final selection of studies. Furthermore, it was not always clear how the different conceptualizations of networks—which included varying degrees of formalisation—could be compared between studies.

Consequently, it was not possible to establish a relationship between benefits/outcomes and degree of network organisation.

Conclusions

The present scoping review explored the structures, outcomes, benefits, success factors and good practices of healthcare networks in hospice and palliative care contexts. The investigated studies applied different research methods without time limitations, providing a broad overview of the research field.

Nevertheless, certain research gaps emerged from the review. While numerous qualitative studies have identified success factors, the lack of quantitative studies precludes any analysis of the relative importance and strength of these factors in facilitating effective networking. The RHPCN structures reported in this scoping review varied from loose collaboration to contractual relationships headed by a fully funded coordinating office. However, it is unclear which of these structures best supports good networking. It would also be useful to determine whether the financial participation of network members contributes to determining their commitment to network collaboration. Overall, there are no established quality criteria or reference points for determining RHPCN quality. Studies aimed at filling these gaps through comprehensive research and a balanced representation of perspectives would contribute significantly to our understanding of the functioning and impact of RHPCNs.

Furthermore, the present scoping review suggests potential implications not only for RHPNs but also for policymakers, encouraging them to support and invest in these networks to ensure long-term sustainability and facilitate moderation and coordination.

Acknowledgements The authors thank Nilab Kamandi, the student assistant involved in the research project HOPAN, for their support in testing the search strategy and obtaining the full texts. The authors also acknowledge Valerie Appleby's professional copyediting of the manuscript.

Contributors HAAR and SvS conceived of the scoping review. HAAR, SvS and FAH designed and coordinated the review study. HAAR conducted the database search. HAAR and SvS screened the search results and extracted the data. FAH supervised the data screening process. HAAR wrote the first draft of the manuscript. SvS and FAH revised the manuscript critically for important intellectual content and contributed to the draft. All authors approved the final version of the manuscript. All contributors are responsible for the overall content, as guarantors.

Funding The present scoping review comprised part of the research project HOPAN, which aims at assessing and analyzing RHPCNs in Germany. The project is funded by the German Innovation Fund of the Federal Joint Committee (G-BA) (Grant N° 01VSF22042; funding period: 01/2023–12/2024). The funding body was not involved in the study design, the preparation of this paper, or the decision to submit the paper for publication.

Competing interests Non competing interests.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; internally peer reviewed.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Hanna A A Röwer <http://orcid.org/0009-0006-9680-7969>

Franziska A Herbst <http://orcid.org/0000-0003-2602-9277>

Sven Schwabe <http://orcid.org/0000-0002-3575-3817>

REFERENCES

- Oosterveld-Vlug MG, Custers B, Hofstede J, *et al*. What are essential elements of high-quality palliative care at home? an interview study among patients and relatives faced with advanced cancer. *BMC Palliat Care* 2019;18:96.
- den Herder-van der Eerden M, van Wijngaarden J, Payne S, *et al*. Integrated palliative care is about professional networking rather than Standardisation of care: A qualitative study with Healthcare professionals in 19 integrated palliative care initiatives in five European countries. *Palliat Med* 2018;32:1091–102.
- Morin D, Saint-Laurent L, Bresse M-P, *et al*. The benefits of a palliative care network: a case study in Quebec, Canada. *Int J Palliat Nurs* 2007;13:190–6.
- McGivern G. Networking to improve end of life care. *London J Prim Care (Abingdon)* 2009;2:113–7.
- De Sande CVMVN-V, Der Rijt CCDV, Visser Aph, *et al*. Function of local networks in palliative care: a Dutch view. *Journal of Palliative Medicine* 2005;8:808–16.
- Gesell D, Hodiament F, Bausewein C, *et al*. Accessibility to specialist palliative care services in Germany: a geographical network analysis. *BMC Health Serv Res* 2023;23:786.
- Schwabe S, Fischer R, Herbst FA, *et al*. Regionale Hospiz- und Palliativnetzwerke in Niedersachsen: Ergebnisse Einer online-Bestandserhebung und -Analyse. *Zeitschrift Für Palliativmedizin* 2022;23:314–22.
- Travis S, Hunt P. Supportive and palliative care networks: A new model for integrated care. *Int J Palliat Nurs* 2001;7:501–4.
- Schwabe S, Buck C, Herbst FA, *et al*. Status exploration and analysis of regional Hospice and palliative care networks in Germany: A protocol for a mixed-methods study. *PLoS One* 2023;18:e0286583.
- Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology* 2005;8:19–32.
- Tricco AC, Lillie E, Zarin W, *et al*. PRISMA extension for Scoping reviews (PRISMA-SCR): checklist and explanation. *Ann Intern Med* 2018;169:467–73.
- Herbst FA SS, Heckel M, Ostgathe C. Description and analysis of partners in Hospice and palliative care networks in Bavaria at the inpatient-outpatient interface: A mixed methods study. *Zeitschrift Für Palliativmedizin* 2017;18:310–8.
- Herbst F, Stiel S, Ostgathe C. Well connected - Optimally cared for!. beneficial factors of collaboration in Hospice and palliative care networks in Bavaria. *Bundesgesundheitsblatt* 2017;60:37–44.
- Herbst FA, Heckel M, Stiel S, *et al*. Development of empirical recommendations for regional Hospice and palliative care networks in Germany: A qualitative study. *Zeitschrift Für Evidenz, Fortbildung Und Qualität Im Gesundheitswesen* 2019;140:35–42.

- 15 Kaiser F, Fliesser-Hartl M, Weiglein T. The oncologic and palliative network Landshut: a problem-solving approach to Oncological and palliative care in structurally weak rural areas, with special emphasis on outpatient and inpatient networking. *MMW Fortschr Med* 2014;156 Suppl 3:79–83.
- 16 Masso M, Owen A. Linkage, coordination and integration: evidence from rural palliative care. *Australian J Rural Health* 2009;17:263–7.
- 17 Bainbridge D, Brazil K, Krueger P, *et al.* A proposed systems approach to the evaluation of integrated palliative care. *BMC Palliat Care* 2010;9:8.
- 18 Bainbridge D, Brazil K, Krueger P, *et al.* Evaluating program integration and the rise in collaboration: case stud of a palliative care network. *J Palliat Care* 2011;27:270–8.
- 19 DARYL BAINBRIDGE BA. Examining palliative care networks in enhancing community palliative care. 2011.
- 20 Cheng S, Librach S, Berry R, *et al.* Healthcare integration: the study of the Toronto central regional Hospice palliative care 'system' and its integration challenges. *Hcq* 2010;13:78–83.
- 21 Dudgeon D, Vaitonis V, Seow H, *et al.* Canada: using networks to integrate palliative care province-wide. *Journal of Pain and Symptom Management* 2007;33:640–4.
- 22 Dudgeon DJ, Knott C, Chapman C, *et al.* Development, implementation, and process evaluation of a regional palliative care quality improvement project. *J Pain Symptom Manage* 2009;38:483–95.
- 23 Seow H, King S, Vaitonis V. The impact of Ontario's end-of-life care strategy on end-of-life care in the community. *Healthc Q* 2008;11:56–62.
- 24 Pereira J, Contant J, Barton G, *et al.* Implementing the first regional Hospice palliative care program in Ontario: the Champlain region as a case study. *BMC Palliat Care* 2016;15:65:65:.
- 25 Zalot GN. Planning a regional palliative care services network. *J Palliat Care* 1989;5:42–6.
- 26 Buikstra E, Pearce S, Hegney D, *et al.* Improving the quality of palliative care in regional Toowoomba, Australia: lessons learned. *Rural Remote Health* 2006;6:415.
- 27 Elsey B, McIntyre J. Assessing a support and learning network for palliative care workers in a country area of South Australia. *Australian J Rural Health* 1996;4:159–64.
- 28 Mitchell GPJ. Developing palliative care services in regional areas. The Ipswich palliative care network model. *Aust Fam Physician* 2001;30:59–62.
- 29 Phillips JL, Davidson PM, Jackson D, *et al.* Enhancing palliative care delivery in a regional community in Australia. *Aust Health Review* 2006;30:370.
- 30 Schmidt-Wolf G, Elsner F, Lindena G, *et al.* Evaluation of 12 pilot projects to improve outpatient palliative care. *Dtsch Med Wochenschr* 2013;138:2585–91.
- 31 Hatch E. Regional Hospice network offers system benefits. *Hosp Prog* 1980;61:67–70.
- 32 Hatch E. Regional Hospice network assessed after first year's operation. *Hosp Prog* 1981;62:59–61.
- 33 Brown BB, Patel C, McInnes E, *et al.* The effectiveness of clinical networks in improving quality of care and patient outcomes: a systematic review of quantitative and qualitative studies. *BMC Health Serv Res* 2016;16:360.
- 34 Cunningham FC, Ranmuthugala G, Plumb J, *et al.* Health professional networks as a vector for improving Healthcare quality and safety: a systematic review. *BMJ Qual Saf* 2012;21:239–49.
- 35 Bitterman P, Koliba CJ. Modeling alternative collaborative governance network designs: an agent-based model of water governance in the Lake Champlain Basin, Vermont. *J Public Adm Res Theory* 2020;30:636–55.
- 36 Liu Y, Tan C. The effectiveness of network administrative organizations in governing Interjurisdictional natural resources. *Public Administration* 2023;101:932–52.
- 37 Evans JM, Comisso E, Grudniewicz A, *et al.* Managing the performance of Healthcare networks: a 'dance' between control and collaboration. *Public Management Review* 2023;1–25.
- 38 Romzek B, LeRoux K, Johnston J, *et al.* Informal accountability in Multisector service delivery Collaborations. *Journal of Public Administration Research and Theory* 2014;24:813–42.
- 39 Mettler T, Rohner P. An analysis of the factors influencing Networkability in the health-care sector. *Health Serv Manage Res* 2009;22:163–9.
- 40 D'Alleva A, Leigh F, Rinaldi C, *et al.* Achieving quadruple aim goals through clinical networks: A systematic review. *Journal of Healthcare Quality Research* 2019;34:29–39.
- 41 Radbruch LNF, Ostgathe C, Lindena G. HOPE - Handbuch Zu Dokumentation Und Qualitätsmanagement in Der Hospiz-Und Palliativversorgung. Wuppertal: Der Hospiz Verlag, 2009.
- 42 Stiel S, Matthes ME, Bertram L, *et al.* Validierung der Neuen Fassung des Minimalen Dokumentationssystems (Midos2) Für Patienten in der Palliativmedizin. *Schmerz* 2010;24:596–604.