



Bridging the Gap: A Qualitative Exploration of the Scientific Linking Pin Role in Science and Care Partnerships

RESEARCH

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ABSTRACT

Background: The Living Lab in Ageing and Long-Term Care (Netherlands) and Nurturing Innovation in Care Homes Excellence in Leeds (NICHE-Leeds; UK) represent partnerships between science and care. The Scientific Linking Pin (SLP), a senior researcher employed by a university, works one day per week in a long-term care (LTC) organisation, and has a pivotal role in the partnership.

Objective: To explore the nature of the SLP role.

Methods: A qualitative approach was used. Fifteen researchers with at least one year's experience as a SLP in either the Living Lab or NICHE-Leeds participated in a semi-structured interview. Data were thematically analysed.

Findings: Participants described how the SLP role provided insights into what matters to care organisations, and how it enabled them to impact LTC practice. Participants perceived the role to be multifaceted. Goals and activities performed by SLPs included developing relationships, raising awareness of the partnership, identifying (research) priorities, generating research questions, building committees, brokering knowledge, developing research studies, generating academic outputs, building links and connections, and assisting with internal projects. Challenges faced were mistrust from care staff and poor engagement, working with staff from different professional backgrounds, research not being a priority for care organisations, multiple and rapidly changing priorities, and differences in expectations. SLPs addressed these challenges through relationship-building, creating a "safe" space for care staff, building engagement, and managing expectations.

Implications: Partnership-working in the care sector is gaining international recognition and adoption, and therefore, it is useful to capture and share learning about successful implementation of this approach.

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INTRODUCTION

The population aged over 80 years is projected to triple globally between 2020 and 2050 (World Health Organisation, 2021). This population represents the majority of long-term care (LTC) residents (OECD, 2021). Internationally, various terms are used to refer to the LTC setting (e.g., care homes, nursing homes or aged care facilities); in this paper, we use the term LTC. Quality of life, care, and work varies across LTC facilities, and the need to promote quality is widely recognised. Research and innovation can help promote LTC quality. However, research is not commonly embedded within training and practice in LTC (Fossey et al., 2014), and the estimated time gap between health-related research and practice is 17 years (Morris et al., 2011).

Lack of collaborative work, and the existence of boundaries between knowledge producers (i.e., researchers) and knowledge users (i.e., practice), contribute to a lack of research evidence use in practice (Lander, 2016; Smit & Hessels, 2021). Boundaries between organisations means there is a lack of learning, dialogue, and knowledge exchange (Akkerman & Bakker, 2011). According to models on boundary-crossing and studies on constructivist science, societal impact can only be created if the distinction between the producers and the users of research disappears; i.e., when organisations cross boundaries and knowledge is created collaboratively by networks of stakeholders (Smit and Hessels, 2021; Suchman, 1993; Akkerman & Bakker, 2011). The value of these networks is increased if the collaboration is transdisciplinary and/or interdisciplinary. Such network building is also being advocated for by the citizen science movement, which urges to include public participation in scientific research to promote equitable access to scientific data and information, and to improve science-society relationships (Bonney et al., 2016; de Sherbinin et al., 2021; Groot & Abma, 2022).

A model that creates scientific knowledge in interdisciplinary networks in LTC is the “Living Lab in Ageing and Long-Term Care” (referred to as Living Lab for short) (Verbeek et al., 2020). The Living Lab model originated at Maastricht University in 1998 in the Netherlands, and was replicated in 2018 in Leeds (UK): Nurturing Innovation in Care Homes Excellence in Leeds (NICHE-Leeds) (University of Leeds, 2022). The Living Lab and NICHE-Leeds are partnerships where academics and LTC organisations work together to improve quality of life and care for older people, and quality of work for staff (Verbeek et al., 2020). Academics and LTC stakeholders work together to identify priorities, form research questions, develop and conduct research projects, and translate scientific evidence into practice (Verbeek et al., 2020). A wide range of stakeholders contribute to the

success of the Living Lab and NICHE-Leeds partnerships: residents, informal caregivers (e.g., family/friends), formal caregivers (e.g., registered nurses, allied health professionals, physicians), insurers, and policy makers (Hewitt & Verbeek, 2022).

One key role within partnerships is the “Linking Pin”: namely, Scientific Linking Pins (SLPs) and Practice-Based Linking Pins (PLPs) (Verbeek et al., 2020). SLPs are senior researchers; they are employed by a university and work one day per week in either a LTC organisation or an educational institute partner. Even though SLPs are not necessarily experts in all topics raised by LTC organisations and educational institutes, they bring scientific expertise that complements existing expertise in the organisation/institute. PLPs are employed by a LTC organisation or an educational institute and work one day per week on research-related activities (Verbeek et al., 2020). SLPs and PLPs work together and cross boundaries with the aim of developing and integrating research knowledge in LTC, and they can therefore be considered “boundary-spanners”.

This partnership way of working is gaining international recognition and adoption (Medical University of Graz, 2022). Even though Linking Pins have a pivotal role in such partnerships, the nature of their role has not yet been described. Insight into the nature and function of Linking Pins would help those setting up similar partnerships and enable those working in this role to have clarity. The current study focused on understanding more about the SLP role: exploring its impact, the experience of those in this role, the content of their work, and the challenges and opportunities they encounter.

METHODS

STUDY DESIGN

A qualitative descriptive study design was used (Sandelowski, 2000), and data collected using semi structured interviews. The Standard for Reporting Qualitative Research (supplementary file 1) (O’Brien et al., 2014) was adhered to throughout this manuscript.

STUDY SETTING

The Living Lab in Ageing and Long-Term Care is a partnership between Maastricht University with nine long-term care providers, Zuyd University of Applied Sciences, and two vocational training institutes, all located in the province of Limburg in the Netherlands (Verbeek et al., 2020). NICHE-Leeds is a UK-based partnership between Leeds Care Association, two care home providers, and the University of Leeds with Leeds Beckett University, Leeds City Council, and Maastricht University (University of Leeds, 2022). Both partnerships aim to enhance the lives of people living or working in care homes.

PARTICIPANT RECRUITMENT

Participants were recruited using purposive sampling. Individuals who were currently working or had previously worked in a SLP role embedded in a LTC organisation, in the NICHE-Leeds or the Living Lab partnership, with at least one year of experience, were eligible. Authors (IE and RD) identified eligible participants and sent invitations via email. Interviews were scheduled with those expressing interest, and, before participation, the purpose of the study was described, an opportunity for questions was provided, and informed consent was taken.

DATA COLLECTION

We designed an interview schedule. Closed questions gathered participant characteristics (e.g., gender, educational background, years of experience as a SLP). Open questions explored participants’ experience of working in a SLP role, their goals, activities carried out, challenges and opportunities encountered, and the impact of their role. We used prompts and follow-up questions to generate more descriptive detail, clarification and/or examples. After the first interview, the researchers reflected on the schedule and asked the participant for feedback, and the questions were refined prior to undertaking more data collection. Each interview was carried out by two researchers: one from the Living Lab partnership and one from the NICHE-Leeds partnership (IE or JU paired with either RD or AG) during July 2021, using online video software. All interviews were recorded.

DATA ANALYSIS

Participant responses to closed questions were summarised using frequency counts. Interview recordings were analysed using thematic analysis (Braun & Clarke, 2006). Familiarity with the data was developed through re-listening to recorded files and writing detailed notes of the key points (and supporting verbatim quotes) raised by each participant (split between IE, RD and JU). Written notes were coded by IE and RD using inductive and deductive coding. All data were coded and organised using Microsoft Excel. Deductive coding involved organising data into the four broad topics explored during data collection: (i) general experiences, (ii) goals and activities, (iii) challenges and opportunities, and (iv) impact of the SLP role. We then coded data within these broad areas inductively, assigning codes derived from the data. Throughout data coding, IE and RD met regularly to discuss and clarify discrepancies in the way data were coded and organized. Coding and organizing data in this way allowed IE and RD to group relevant coded data and identify patterns and themes. The themes were drafted, reviewed, shaped, and refined by the team.

RESEARCHER CHARACTERISTICS AND REFLEXIVITY

Data were collected by researchers working in a SLP or a network coordinator role in either the Living Lab (IE and RD) or the NICHE-Leeds (RD and AG) partnerships. Participants were known to the researchers conducting the semi-structured interviews.

RESULTS

Seventeen eligible SLPs were invited to participate in our study, and 15 did (88% of those invited). Participant characteristics are outlined in Table 1. Interview duration ranged from 45 to 60 minutes, and data analysis resulted in two overarching themes: i) the SLP experience, and ii) navigating in a SLP role.

	PARTICIPANTS	N
Gender	Female	11
	Male	4
Currently working as a SLP	Yes	9
	No	6
Current academic position*	Professor	3
	Assistant professor	5
	Senior research fellow	1
Previous academic position**	Assistant Professor	2
	Associate Professor	2
	Lecturer	1
	Research assistant	1
Educational background	Health Sciences	6
	Psychology	4
	Nursing	2
	Occupational Therapy	1
	Neuropsychology	1
Years of experience as a SLP	Physical Therapy	1
	1–2 years	2
	2–5 years	10
	6–10 years	2
Number of care organizations worked in as a SLP	>11 years	1
	1	11
	2	4

Table 1 Participant characteristics.

*Characteristics described for participants currently working as SLPs (n = 9).

**Participant characteristics described for participants who previously worked as SLPs (n = 6).

THE SCIENTIFIC LINKING PIN EXPERIENCE

The experience of working as a SLPs was described across three subthemes: a) close connection to practice and having an impact, b) professional and academic growth, and c) experiencing doubts and insecurities.

a. Close connection to practice and impact

Spending time in a care organisation meant participants developed rich insights into the challenges they experienced and what matters to residents, family/friends, and professionals. Having this close connection and insight into LTC was viewed as a privilege; one that other researchers may not experience:

“Working as a Linking Pin brought me a lot, I acquired expertise that goes beyond research. I learnt a lot about clinical practice and also nursing home practice, in my case. I learnt to understand why people react the way they react, what is important to people, and the problems that they face.” (Participant 15)

Having this opportunity enabled SLPs to conduct research, which has a positive influence on practice:

“As a researcher, you want to do really good scientific research and you want to have an impact. You want to have scientific impact but also societal impact – I don’t just want to do research to know something I want it to be useful and have impact on the field.” (Participant 3)

Participants also described the impact of their work on a (national) policy level. One participant described a study conducted 20 years ago on physical restraint use. The initial study was a prevalence study, which led to more studies on this topic. All the studies conducted on this topic addressed questions asked by LTC care professionals. Over time, the knowledge generated as a result of these studies led to changes in national policies on restraint use.

b. Professional and academic growth

Insights gained from practice enriched the SLPs’ research and teaching activities. For example, one participant described developing the questions asked by care professionals into a research grant proposal. Research funding was secured, and the research carried out then led to 10 peer-reviewed papers. The research findings positively influenced practice, and also enabled that SLP to be promoted in her academic role. Another participant described a palliative care project, which influenced teaching, research, and practice in the care organisation:

“It really helped me to have insight into the organization and their projects, what they are

working on, and what innovations they are doing, but more importantly what the challenges in practice are – and then, I use these as example illustrations in education and teaching.” (Participant 6)

c. Experiencing doubts and insecurities

Alongside the positive experiences described, SLPs experienced doubts and insecurities about their work and performance, particularly when they were new in the role:

“When I started, I had absolutely no idea about my goals and what I was doing. But I was eager to try and improve clinical practice.” (Participant 15)

“When I started, I didn’t really have an idea of what was expected of me. I understand that the role of the linking pin can be different in each organization, but some sort of framework would have been welcome.” (Participant 8)

Participants reported that, as their confidence increased, their insecurities decreased. Supervision from the board of the partnership, as well as mentorship from experienced SLPs, helped. Opportunities for regular reflection and discussion with experienced SLPs who provided feedback on their work and progress, alongside inspiration and ideas, was seen as important. Participants also emphasised that when experiencing insecurities, it is important for those in a SLP role to remember that projects take time to establish, and all successes should be celebrated and acknowledged. While participants highlighted needing a clear role description for direction, guidance, and reassurance they also described needing some flexibility as the LTC organisation, their individual personality/character traits and style, and professional background influenced the way they worked.

NAVIGATING IN A SCIENTIFIC LINKING PIN ROLE

Participants described that the overall aim of the Living Lab and NICHE-Leeds partnerships was to improve quality of life and care for residents, and quality of work for staff working in LTC. Participants described how they worked in their role to pursue this overall aim. The nature of the work was varied. We identified nine main areas of the Scientific Linking Pin role: (1) developing relationships, (2) raising awareness of the practice-science partnership, (3) identifying priorities and developing research questions, (4) building scientific committees, (5) brokering knowledge, (6) developing and conducting research studies, (7) generating academic outputs, (8) building links and connections, and (9) assisting with internal projects. The specific activities involved within each of these subthemes are provided in the supplementary file.

1. Developing relationships

Participants built relationships with a range of professionals (e.g., management staff, board of directors, frontline care staff) working in the care organisation. Participants emphasised the importance of investing time and effort into building good working relationships as these were essential for being effective in subsequent activities:

“It takes time to get to know the organisation, getting to know the people who work there, for example, the board of directors, the nurses, the advisory panels, innovation management group.” (Participant 4)

When working on developing relationships, SLPs faced challenges. Staff turnover meant working relationships were lost when staff left the LTC organisation:

“Staff turnover is happening at all levels: practice and direct care staff but also management. I have to keep developing relationship again and again with staff. It takes time to develop a new relationship.” (Participant 6)

Participants suggested the need to be strategic when building relationships: forming relationships with multiple staff working at different levels meant SLPs did not depend on one person. Other challenges SLPs faced were a lack of trust and engagement from LTC staff. When SLPs perceived mistrust from LTC staff, they worked on creating a trusting and psychologically safe environment, one where staff felt able to speak openly and honestly (the specific ways SLPs worked to build trust are outlined in the supplementary file):

“A linking pin researcher needs to have relationships in the care home, and care staff to feel that they won’t be judged by the researcher if they’re not managing to do their care work to policy level standard.” (Participant 15)

SLPs expressed they experienced difficulties when communicating with LTC staff with different professional background and interests. One participant described working with senior management staff who used strategic and business management terms unfamiliar to her. To address this, SLPs worked with LTC staff with common interests, and when differences arose, the SLP invested time in familiarising themselves in professional language and culture:

“I found it difficult as I felt I didn’t speak the same language, especially during the first years when I used to speak with the CEO I used to think oh

my gosh what is he talking about. So that was difficult, the language issue, the topic issue and especially at the strategic level. The CEOs they have a completely different perspective.” (Participant 3)

2. Raising awareness of the practice-science partnership

SLPs raised awareness in the LTC organisation of the partnership, the SLP role and current research projects. Visibility of the SLP was crucial for this. SLPs were visible through being physically present in the organisation, attending planned events and meetings, and sharing information through internal communication channels (e.g. staff WhatsApp groups, newsletters, or website). Increasing visibility of the partnership required continuous and repetitive communication efforts. One participant worked closely with the marketing staff to help raise awareness of the partnership:

“In the organisation where I work we have regular newsletters and we make sure that in every newsletter we have some information about our research projects. This helps staff to become more familiar with our projects.” (Participant 6)

3. Identifying priorities and developing research questions

SLPs identified the LTC organisation’s priorities through consulting with a wide range of staff, residents, and relatives, and through reviewing relevant documents (e.g., annual reports), which provided insight into the organization’s strategic agenda. After priorities were identified, research questions were generated. This was a process; one that involved the SLP clarifying and sense-checking interpretations with LTC staff, residents, and relatives, as well as seeking input when refining research questions:

“If you don’t have an idea of what their specific question is, you do something that is not according to their expectation and therefore it is important to go through this stepwise process to really go down to understand what is the question behind the question.” (Participant 4)

A challenge SLPs experienced was when research was not a priority for the LTC organisation. This was often the case when an organization faced more pressing issues, or unexpected changes in senior staffing. When this happened SLPs considered working on a topic within the organisation’s current interest. Another challenge experienced was when the organization had multiple priorities. Participants described that a common response from SLPs was to be enthusiastic and want to address all the organisation’s priorities. Participants warned against

this, and emphasised the importance of focusing on a manageable number of topics and remaining realistic about what can be achieved in their one day a week role:

“I can’t do everything in 8 hours a week by myself, in the beginning I tried to do so and then realised it isn’t possible, and then discovered it is better to be focused on a few topics and not try to do everything.” (Participant 6)

In addition, rapidly changing priorities were also challenging, as these instances made it difficult for SLPs to sufficiently address priorities. Not sufficiently addressing a priority before moving onto another was demotivating, and when SLPs encountered this they worked with the LTC organisation to create a long-term vision with specific prioritised topics:

“I also try to advise the board of directors and managers that you really have to take to your vision for a couple of years and do not switch from one topic to another within a short period of time. This is what we see in practice. Today something is very hip, and then the next day it is something else. It is important to have topic-specific vision for a long period of time.” (Participant 1)

4. Building scientific committees

Participants described putting together scientific committees (also referred to as research and development committees, or design-thinking committees), and these helped to create a culture of research and innovation in the organisation. Committees comprised a wide range of stakeholders interested in research, innovation, and change. Within these groups, research topics, priorities, and scientific evidence were discussed, interpreted, and translated. Committee members described the issues faced in practice, and this insight informed the development and design of research projects. Over time, committee members became competent in performing and using research:

“I asked the care home director to help put together a group of people from the care home who were interested in innovation and change. The group included a manager, occupational therapist, physiotherapist, clinical nurse, and a medical doctor. We started to think about and discuss together what were the main problems that they faced in their work.” (Participant 15)

5. Brokering knowledge

Once the LTC organisation’s priorities/questions were established, SLPs searched the scientific literature for evidence-based solutions that could help address the

priorities/questions. Providing evidence-based knowledge helped LTC staff understand how their current practice aligned to the evidence, indicating areas of practice that needed to be adapted:

“After a research question is established, I review the evidence by going to the literature and trying to find a systematic review, and then I come up with an answer to the question.” (Participant 16)

SLPs also taught care professionals to search the scientific literature:

“I teach nurses when they have questions try to look for evidence and assessment scales, or interventions that have been proven to be very effective.” (Participant 4)

Furthermore, SLPs worked with care home staff to translate evidence into an accessible language and format. This may be a creating a summarised factsheet, or sharing information through symposiums, webinars, or workshops.

6. Developing and conducting research studies

When priorities and questions exposed a gap in research evidence, SLPs worked together collaboratively with the care home to develop research studies designed to generate evidence-based solutions. According to participants, working in the science and care partnership helped LTC professionals learn more about research and become ambassadors for research within the organisation. SLPs described writing grant funding applications to secure research funds to cover the cost of carrying out primary research studies. Being part of the partnership and developing studies with LTC organisations improved the chance of securing such research grant income:

“Being embedded in care home organisations also helps with grant applications. I got ideas from a care home director who suggested they needed a better transfer from home to nursing homes, and now we have a whole EU project on it.” (Participant 3)

SLPs faced some challenges when developing and carrying out research studies. SLPs described instances where LTC staff did not engage in research, held negative attitudes towards research, did not understand research, and perceived research activities as detached from day-to-day practice. Participants described that it takes time to build staff enthusiasm and engagement and for staff to “own” projects (the different ways SLPs worked to build engagement are outlined in the supplementary file). In addition, participants described a common

response from LTC organisations was the expectation for research projects to generate quick results. In these instances, SLPs managed expectations around research timelines, and suggested setting both short- and long-term outcomes:

“Expectation management is something that has to be done continuously. Within a care organisation there are different levels and layers of people, and all people will see scientific research differently.”
(Participant 3)

7. Generating academic outputs

The SLPs’ primary employer was a university, and, for this reason, participants spoke about the importance of academic outputs which were needed for fulfilling university success criteria, and progressing in their careers. Addressing topics and questions raised by the LTC organisation allowed the SLP to work on and generate academic outputs, such as publish research papers, generate research grant income, and present research at conferences. However, participants cautioned that being too focused on academic outputs risked the SLP not becoming embedded in the care organisation. Participants advised that SLPs should first take the time needed to build relationships, get to know the organisation, and become established in their role, and once this is achieved the SLP will start to develop ideas and projects which will then lead to academic outputs.

8. Building links and connections

Sometimes topics and research questions raised by the care organisation were outside of the SLPs’ expertise. In these instances the SLP connected the organisation to other SLPs or other research groups with relevant expertise, providing opportunities to expand the partnership:

“When I’m not familiar with topics, I try to find others who have the expertise.” (Participant 6)

SLPs also connected care organisations who raised similar topics, and this led to larger collaborative research projects across multiple organisations. To do this, SLPs needed to be in close contact with other SLPs and have an overview of the topics being worked on across the partnership. To address the topics and research questions raised by care organisations participants further emphasized the need for SLPs to remain realistic about their one day a week role. For this reason, participants highlighted the need for SLPs to find links and connections which helped to build research capacity. Another way of building research capacity and align research, practice and education was to involve students to work on topics and questions addressed by the care organisation.

9. Assisting with internal projects

Participants described that their SLP role also involved supporting care organisations with internal projects. This included helping with tasks such as organizing and analysing data, providing critical thinking input, advising on topics, or commenting on reports. Assisting care organisations with their internal projects helped with gaining trust and building relationships. As an example, one participant described working with a LTC director to understand why frontline staff resisted change:

“For me this became a rather large part of the Linking Pin role. Especially in the beginning I was more concerned with being relevant and useful to the organisation rather than my own research output.” (Participant 11)

“The organisation benefits from the presence of a Linking Pin. We bring a different perspective, different skills.” (Participant 9)

When assisting with internal projects, participants described the need for SLPs to be clear about their role and manage expectations about the content of their work.

“The perception of many people in the organisation was that researchers know everything about all topics: they saw me as a walking encyclopedia.”
(Participant 12)

One participant described an instance when the LTC organisation saw her as a policy advisor, and when this happened it was important to manage expectations around the SLP role.

DISCUSSION

The SLP is a key role in science and care partnerships, and, in this study, two overarching themes captured the nature of the role. The first theme, *the SLP experience*, outlines the benefits of working in a SLP role. Along with these benefits, SLPs also described experiencing doubts and insecurities and raised the importance of receiving support through mentorship and supervision. The second theme, *navigating in a SLP role*, illustrates the multifaceted nature of work involved and the challenges SLPs faced whilst undertaking their work. The ways SLPs worked to overcome these challenges were described and highlighted the importance of relationship building, creating a “safe” space, harnessing engagement in practice, and managing expectations.

Insights from this study resonate with previous evidence that describes quality improvement projects in LTC. For example, Devi et al. describe considerations

for teams working on improving quality in LTC, such as the importance of relationships, creating encouraging and supportive working environments, and the need to address priorities (Devi et al., 2020). The evidence base describing how to apply quality improvement tools in LTC is in its infancy (Chadborn et al., 2021), and evidence describing the working mechanisms of science and care partnerships is also developing. We suggest stakeholders interested in promoting quality in LTC settings consult with and learn from evidence generated from across the fields of health and LTC.

The activities carried out by SLPs are focused on impacting LTC practice, and, for this reason, SLPs and the partnership model fit the ambitions of academic institutions to achieve societal impact. In the Netherlands, the system for modernising the recognition of academic activity (Recognition and Rewards system) should not solely be assessed on quantifiable output (e.g. number of publications), but also on societal impact (Association of Universities in the Netherlands, 2019). In the UK, the Research Excellence Framework is an exercise which assesses the impact of research beyond academia (UKRI, 2022). Science and care partnerships provide a formal platform and infrastructure where scientists and LTC stakeholders work together ensuring evidence-based knowledge is used to address practice-based priorities and questions. Given the need to improve quality of care, life, and work, and a growing focus on achieving greater impact, working in ways that enables evidence to reach practice is becoming increasingly important. Science and care partnerships offer a solution for generating impactful research in LTC.

Those wanting to know more about science and care partnerships should read this paper in conjunction with the papers of Verbeek et al. (2020) and Griffiths et al. (2021). Together, these papers provide insights for others adopting the science and care partnership model (Verbeek et al., 2020; Griffiths et al., 2021). Verbeek et al. (2020) outline the science and care partnership model (referred to as the Living Lab in Ageing and Long-Term Care), and the model's mission and key mechanisms. Verbeek et al. (2020) refer to Linking Pins as one of the model's key components, and we build on Verbeek et al. (2020) by providing an in-depth exploration of the SLP role. Further, Griffiths et al. (2021) outlined the steps undertaken to improve mouth and oral care within the NICHE-Leeds partnership, undertaking the following activities in their work: identifying priority topics, translating topics into research questions, finding relevant evidence-based solutions, translating evidence into an accessible format, and developing research funding applications to generate the funds needed to address gaps in the evidence. The current study builds on previous work by also describing the experiences of those working as SLPs, other activities involved in their role (e.g., building relationships), the challenges experienced

(e.g., mistrust and lack of engagement) and ways that challenges are overcome (e.g., create a 'safe' space).

When looking to the wider literature, it is evident that there are differences in the way SLPs and comparable roles (e.g., embedded researchers) are operationalised in different contexts. For example, SLPs taking part in this study were employed by a university, held academic positions (e.g., Professor, Lecturer, Senior Research Fellow), and worked one day per week as a SLP in a LTC organisation. In contrast, in a healthcare context, it is common for those in a research and practice bridging role to also work in a clinical role. For example, in the 'Nurses, Midwives and Allied Health Professionals – Embedding Research' partnership, Whitehouse et al reported the embedded researchers worked in a clinical role (e.g. nurses, midwives and allied health professionals) in a hospital setting and part of their role involved developing capacity for research by undertaking masters or doctoral level training. In contrast, SLPs taking part in this study were already trained at a masters and/or doctoral level, did not have a practice-based role, and were paired with a PLP employed by the care organisation (Verbeek et al., 2020). This example illustrates variation across contexts in the way research and practice bridging roles are operationalised. In addition to operational differences, the challenges and opportunities experienced are also likely to differ across different contexts. For example, SLPs in this study described instances when LTC staff used terms and phrases unfamiliar to them and as a result invested time familiarising themselves in the professional language and culture of the LTC organisation. This may not be a challenge to embedded researchers who are also working in a practice-based role.

Even though there are differences between contexts in the way the role is applied we suggest SLPs (and comparable roles) should examine examples from other contexts and consider whether there is potential for transferrable learning. Our paper provides a detailed account of the activities carried out at the care organisation level but did not examine how bridging roles work with decision makers in the wider system, and in this instance SLPs can turn to papers such as Armstrong et al (2013) to consider their insights into the translation of knowledge for policy (Armstrong et al., 2013). When searching and navigating the literature it is important to consider the many different terms and phrases used interchangeably in the wider literature to refer to similar roles, for example: embedded researchers, boundary spanners, researchers-in-residence, brokers, and knowledge mobilisers.

STRENGTHS AND LIMITATIONS

This is the first study to provide a detailed insight into the nature of the SLP role in science and care partnerships. These insights are useful to groups adopting partnership ways of working. An international sample was recruited,

representing (current and past) SLPs working in the UK and the Netherlands. A limitation to consider is that semi-structured interviews were carried out by researchers working in the UK and Dutch partnerships, and for this reason, participants' responses may have been influenced by socially desirable response bias. In addition, the views of others working with SLPs such as staff in the LTC organisation are not represented here. Colleagues of SLPs from both the academic and care organisations may have provided more insights around the nature of the SLP role. Furthermore, our findings only provide a snapshot, and future work should build on our findings. It is possible that there will be more knowledge to share as SLPs navigate new challenges. For example, at the time of writing, the LTC sector is facing a staffing crisis, COVID-19 outbreaks, and possibly disruptions caused by other wider issues, such as climate change/heatwaves, and unprecedented cost of living crisis.

IMPLICATIONS FOR PRACTICE

The study findings can be used to develop a detailed role description that SLPs can use to apply themselves to be effective when navigating in their role. In addition, the specific skills and expertise required to work in this role are implied, and those recruiting prospective researchers to work in a SLP role should use the findings to help select suitable researchers with appropriate skills, experience, and expertise.

FUTURE RESEARCH

Future research should build on our study and describe the other science and care partnership roles. Describing the PLP role, as well as the role of LTC organisation staff, residents, and their family/friends, would provide a comprehensive overview of the model. In addition, the themes in this study are presented as individual and distinct factors; However, the content of each theme builds on content described in previous themes. For instance, *relationships* and *building engagement* with the LTC organisations will influence whether the organisation openly shares their challenges and *priorities*, which in turn will influence whether or not the LTC organisation will respond to information around the priority when the SLP carries out *knowledge brokering*. Future research should examine the nature of the interaction between themes and outcomes gained – this may help provide further direction around the tasks SLPs should focus on.

CONCLUSION

Partnership-working in the LTC sector is gaining international recognition and adoption, and this paper outlines insights into one key role within science and care partnerships: the SLP role. SLPs experience many benefits when working in this role, but also experience doubts and

insecurities, and therefore need support in this role. Our findings can help SLPs navigate and be effective in their role.

DATA ACCESSIBILITY STATEMENTS

All data generated or analysed during this study are included in this published article [and supplementary information files].

ADDITIONAL FILE

The additional file for this article can be found as follows:

- **Supplementary file 1.** Standards for Reporting Qualitative Research (SRQR). DOI: <https://doi.org/10.31389/jltc.212.s1>

ETHICS AND CONSENT

This study was reviewed and approved by the Maastricht University, Faculty of Health Medicine and Life Science Research Ethical Committee (FHML-REC/2021/083).


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COMPETING INTERESTS

Authors work in either the Living Lab in Ageing and Long-Term Care (IE, JU, HV, JH) or the NICHE-Leeds (RD, AG, KS, KH) partnerships.

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