

Prerequisites for building academic research-practice partnerships in rehabilitation: municipal interest-holder perspectives from a qualitative mapping study

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Abstract

Background

Healthcare research often struggles to bridge the gap between political and organizational sectors, limiting its practical application in clinical settings. In Denmark, hospitals traditionally lead research, while municipalities historically have limited involvement and lack structured mechanisms for academic collaboration. Using rehabilitation in physiotherapy and occupational therapy as a case, this study explores current practices and identifies opportunities and challenges for building research-practice partnership between hospitals and municipalities.

Methods

This qualitative mapping study is the first phase of the 'Building Research Partnerships Across Sectors' project originating from Hospital Lillebaelt in the Southern Region of Denmark. Twenty-seven semi-structured interviews were conducted with 29 participants across six municipalities, including therapists (n = 5), rehabilitation unit managers (n = 6), local health politicians (n = 6), health chiefs (n = 6) and health directors (n = 6). Data were thematically analysed to identify key themes related to research engagement and partnership potential.

Results

Three overarching themes were identified: 1) Existing cross-sectoral collaboration and gaps, where participants highlighted hierarchical dynamics that marginalize municipal perspectives in decision-making, leading to a disconnect between research priorities and practical needs; 2) Fostering effective academic partnerships, emphasizing the importance of involving municipal interest-holders early in the research process, continuous communication and mutual trust; 3) Motivating factors and anticipated outcomes, which included professional development opportunities for healthcare professionals and strategic benefits for municipalities, such as enhanced reputation and improved resource allocation, ultimately leading to better healthcare delivery and patient outcomes.

Conclusions

This study contributes new insights into academic research-practice partnerships in rehabilitation. It highlights the importance of equitable engagement, early involvement of municipal interest-holders and continuous communication, and alignment between research agendas and practical needs. By offering a detailed empirical account of municipal perspectives, the study provides a foundation for strengthening research-practice partnerships in healthcare systems and improving the relevance and impact of

rehabilitation research. Future efforts should focus on strategic support and the development of infrastructure that facilitates sustainable academic research-practice partnerships.

Trial registration

The research project was registered at the Region of Southern Denmark's list of research projects on June 15, 2023, with registration number 23/28322.

Background

The organization of healthcare in Denmark is rapidly changing with shorter hospital stays and increasing responsibilities for increasing responsibility for rehabilitation and other health-related services being transferred to municipalities, particularly in rehabilitation. As rehabilitation services increasingly involve both hospitals and municipalities, stronger mechanisms are needed to support the generation, sharing, and application of research-based knowledge across sectors. New academic partnerships between hospitals and municipalities may provide one such mechanism by strengthening research capacity and supporting evidence-informed rehabilitation practices.

In Denmark health research is primarily conducted by hospitals and universities, both legally obligated to do so. Between 2001 and 2021 hospitals accounted for 57% of affiliations in rehabilitation research in Denmark, universities 28%, while municipalities contributed only 1% (1). This limited municipal involvement is likely due to the absence of legal requirements and structured mechanisms for research engagement. Instead, primary healthcare research often relies on individual initiatives, lacking institutional support (2, 3). In 2022 the Danish Health Authority launched a national research strategy to strengthen primary healthcare research (3).

Effective academic partnerships require leadership, shared priorities, and alignment between research agendas and operational needs (4, 5). However, Danish municipalities often lack the capacity, infrastructure, and strategic frameworks to participate meaningfully in research (6). This disconnect limits their ability to contribute to and benefit from evidence-based rehabilitation.

Denmark's dual healthcare system consists of a primary sector managed by 98 municipalities and a secondary sector overseen by five regions. After hospitalization, patients may need rehabilitation therapy, which is tax-funded and free at the point of use (7). Despite this integrated structure for clinical practice, collaboration between hospitals and municipalities in research remains limited. Hospital-led research initiatives in physiotherapy and occupational therapy often face challenges in both engaging municipalities in the research process and ensuring subsequent uptake in municipal practice, due to unclear relevance, limited ownership, and differing organizational timelines (8–10).

The limited research opportunities for rehabilitation therapists may constrain professional development, specialization and evidence-based practice (11, 12). Early involvement of municipal interest-holders in

research processes would allow for co-creation of knowledge, identification of shared priorities, and alignment with practical needs, thereby fostering innovation and improved quality of therapeutic rehabilitation services (13, 14).

Recent international studies point to similar challenges in research collaborations across healthcare and local government bodies, emphasizing the importance of shared ownership, organizational readiness, and mindset shifts to enable meaningful cross-sectoral engagement (15).

Despite policy ambitions, there remains a significant knowledge gap in how to establish sustainable, long-term academic partnerships between hospitals and municipalities. Understanding the political and organizational conditions is vital, particularly in the Danish context, where municipalities play a key role in rehabilitation.

This study reports from the first phase of the 'Building Research Partnerships Across Sectors' project. It aims to explore the current practices and identify opportunities and challenges for academic research-practice partnerships between hospitals and municipalities, using physiotherapy and occupational therapy rehabilitation as a case example.

Methods

Study design

The overall project design draws on principles of co-production and collaborative partnership development, emphasizing continuous interest-holder involvement, iterative development, and the establishment of sustainable, systematic structures for academic partnerships across sectors.

The project is organized into three stages: 1) preparatory mapping (reported in this paper), 2) co-production, and 3) prototyping (16). This structured approach aims to foster long-term, equitable partnerships between hospitals and municipalities, ensuring that research efforts are both relevant and feasible while supporting the longevity and effectiveness of these academic partnerships.

The preparatory mapping study reported here was undertaken to generate insights and a solid base for the overall project and partnership by identifying and exploring interests, attitudes, prior experiences, willingness, readiness and uncertainties in relation to academic partnership on health research from all key interest-holders in the prospective partnership. To facilitate in-depth understanding of the participants' perspectives, a qualitative descriptive approach using semi-structured interviews was chosen.

In relation to the interviews with key interest-holders, the vision of the project was communicated as a first step in fostering interest and initial engagement in a collaborative process towards forming academic partnership across health sectors.

Setting

The study took place in the Region of Southern Denmark across the primary and secondary health care sectors. The setting included Hospital Lillebaelt and the six surrounding municipalities: Fredericia, Vejle, Middelfart, Kolding, Vejen, and Billund.

In 2023, Hospital Lillebaelt had 549 designated beds and 55,840 department admissions and primarily receives patients from the six adjacent municipalities. The municipalities vary not only in size and population but also in their urban and rural characteristics. Vejle and Kolding are larger municipalities (around 115,000 and 93,000 residents, respectively) with significant urban areas. Fredericia and Middelfart, while still substantial in size (around 50,000 and 39,000 residents, respectively), maintain a blend of urban and rural features. Vejen and Billund are predominantly rural municipalities (around 42,000 and 27,000 residents, respectively).

Sampling

We employed a purposive sampling strategy to recruit participants with in-depth knowledge relevant to the research question (17, 18). This approach focused on selecting individuals whose professional roles provided critical insights into the topic. We sought to engage participants holding specific positions, including therapists, rehabilitation unit managers, local health politicians, and health chiefs and directors, from the six municipalities.

Interest-holder analysis guided our recruitment, identifying 30 potential participants based on their roles. Following the concept of information power as outlined by Malterud et al. (19), we aimed for a sample size that would provide sufficient depth of information to address our research objectives. The inclusion of a relatively small number of key individuals in relevant roles across the municipalities aligned with the principle of information power, supporting the selection of this sample to gather rich, meaningful data from those most capable of addressing the study aim.

Data collection procedure

All potential participants were invited to participate in individual semi-structured interviews or in small groups with a colleague if they found this preferable. The interview guide, with the main topics of organizational structure; attitudes towards research; academic partnerships; and effects of increased research, translated from Danish to English, is available as supplementary material (Supplementary file 1 - interview guide). Beyond the items in the interview guide, all participants were invited to freely express their point of views on other topics related to the study aim.

Data analysis

All interviews were transcribed verbatim and analysed thematically (20). Transcription and coding were performed by SdPK using NVivo (version 14). The analysis was inspired by Braun and Clarke's thematic analysis (21), following their systematic approach to identifying and interpreting key patterns within the data. While the primary analysis was conducted by SdPK, the interpretative process was performed in

collaboration with KGI (co-author) through discussions, critical feedback and alternative perspectives on the emerging codes, themes and interpretation. All quotes included in the manuscript were translated by SdPK from Danish to English.

Results

Of the 30 invited participants, 29 agreed to participate, representing a high level of engagement. One rehabilitation unit manager chose not to participate due to a busy schedule. Twenty-seven semi-structured interviews were conducted; there were two paired interviews, one involved two rehabilitation unit managers from the same municipality, and one involved one health director and one health politician from the same municipality.

The participants included were therapists (n = 5), rehabilitation unit managers (n = 6), local health politicians (n = 6), and health chiefs and directors (n = 12). The participants' age ranged from 32 to 64 years, with a median age of 52 (IQR: 44–60 years). Of the participants, 24% (n = 7) were men. All interviews were conducted in-person by SdPK (first author) from May 2023 to March 2024 in a quiet room at the participant's workplace. The interviews lasted on average 51 minutes (range between 23 minutes to 1 hour and 11 minutes).

Three main themes were generated through the thematic analysis: 1) Existing cross-sectoral collaboration and gaps, 2) Fostering effective academic partnerships, and 3) motivating factors and anticipated outcomes.

Existing cross-sectoral collaboration and gaps

Data consistently showed that the existing cross-sectoral collaboration between the hospital and the surrounding municipalities was primarily based on organizational frameworks, focusing on structures, processes, and formal procedures rather than personal relationships or direct interactions between professionals. The collaboration was primarily centred on patient care, particularly in relation to rehabilitation planning and transitions between sectors, and was largely hierarchical, flowing from hospitals to municipalities.

None of the six municipalities had a research strategy and possessed very limited experience in initiating or conducting research. Participants consistently highlighted a clear cultural gap between the hospital and municipal sectors in how research was perceived and approached. Despite this, the existing collaboration was seen as a crucial foundation for establishing a future academic research partnership between the hospital and municipalities.

Balancing long-term research with immediate municipal needs

The long duration from the start of research to the application of its results in practice was consistently highlighted as a challenge for municipalities. This was especially true when addressing a problem in a

joint research project. Municipalities often felt an urgent need for new knowledge to guide their efforts and respond to current issues. One of the managers explained:

“Well, it is the fundamental premise (regarding research) that it takes a long time from starting until you have a usable result. Therefore, there is a cultural understanding that if you conduct research, you will not have a result tomorrow. I think that is also a barrier for those of us who have not been culturally accustomed to it. So, who benefits from it? Maybe you will in six years or so, and it is important to communicate that”. (Rehabilitation unit manager from municipality 5)

It highlights a key issue in the time gap between research initiation and the delivery of actionable results, particularly for municipalities. Their knowledge needs and priorities often shift rapidly due to political or societal pressures, and the prolonged research timeline can result in a mismatch with their immediate requirements. Municipalities may feel that research does not address their current challenges in a timely manner.

Navigating the dual challenges of knowledge transfer and research partnerships in municipal settings

Overall, the participants perceived research as something distant and challenging, viewing it as an additional task that requires extra documentation and registration. They generally found taking part in research projects was daunting and believed it required considerable effort. At the same time, they expressed concern that if they do not stay updated on the latest evidence and actively contributed to research with their expertise and citizen-oriented perspectives, it could result in a lack of knowledge exchange and hinder the advancement of best practices. This could impede innovation and progress both in the research field and in citizen-oriented rehabilitation.

Consequently, there was a strong emphasis on the importance of research partnerships where municipalities could influence what is being researched and how it could benefit their practice. It was highlighted that clearly communicating who benefits from the research is crucial, effectively underscoring the ‘what’s in it for me’ factor to motivate participation in academic partnerships. Participants stressed the need to generate knowledge that is directly relevant to their daily work within municipalities. They called for a more practice-oriented approach that considers their specific challenges and contextual conditions. As one participant explained:

“The key advantage (of an academic research-practice partnership) would be that, as a municipality, you could influence what is being researched. You would have the opportunity to say, ‘That might be relevant, but we actually believe this knowledge is more important for improving our practice.’ This would allow for a clearer and more practice-oriented connection.” (Health director from municipality 1)

The relevance of research in practice is essential, as it ensures that research outcomes effectively address real-world needs.

Understanding the challenges of research rigor and protocols in therapeutic settings

When practitioners lack experience with research, adhering to strict research protocols can seem rigid and unhelpful. A rehabilitation unit manager stated that implementing research projects in therapeutic and practice-oriented environments can be challenging:

“The downside (of an academic research-practice partnership) is that there is still a distance to the research environment and perhaps also a lack of understanding of its rigor. I have participated in some research projects myself, so I am familiar with it, but my therapists necessarily are not. When you do not have a therapist with research competencies or experience attached to the department, I think my therapists will generally lean towards minor development projects and might not understand why researchers cannot be a bit more pragmatic about it, as it would make more sense for the citizens or for us. That can certainly be a hurdle, I believe.” (Rehabilitation unit manager from municipality 2)

This statement underscores the difficulties encountered when incorporating rigorous research practices into therapeutic settings. The manager highlights a significant gap between the research environment and the practical needs of rehabilitation units. The detailed and stringent protocols required in research can appear disconnected from the immediate, pragmatic needs of practitioners who are focused on delivering effective interventions to citizens.

Fostering effective academic partnerships

Early involvement

In particular, the therapists and the rehabilitation unit managers emphasized a desire for and importance of early involvement, continuous communication, and equitable participation in research. They believed that being involved from the beginning of the research projects would ensure that their practical insights and expertise were incorporated, leading to more relevant and applicable outcomes. Overall, the participants saw continuous communication throughout the research process as essential for aligning expectations, addressing concerns, and fostering a collaborative environment. One of them explained the potential of early involvement in research to reduce the challenges experienced in relation to conducting research in a municipal practice as follows:

“It is important for us that we are involved very early on in a research project, so we can contribute and tell you (the researchers) about the everyday life we have with the citizens. Then you can better organize the things you want to find out... We could have told you about these things if only we had been asked”. (Rehabilitation unit manager from municipality 4)

Identifying common ground in enhancing research relevance

Municipal participants expressed a strong desire to strengthen collaboration between sectors to ensure that knowledge, resources, and best practices are effectively shared and utilized, ultimately improving patient care and rehabilitation outcomes. Establishing common ground and aligning research relevance with municipal and practical needs is crucial, as they believed municipalities often feel overshadowed by the agendas of researchers and hospitals. The participants emphasized the importance of creating common ground not only between municipal therapists and researchers but also among political and managerial leaders. Political and managerial support were seen as vital for prioritizing resources for research projects. Although there is some existing support for health-related research within the municipal framework, research was not yet a regular part of everyday practice. A local health politician reflected on the potential impact of research:

“That (whether the rehabilitation units should integrate research into their practice) is not something we, as politicians, usually get involved in, but it might be something we should do... Every time you test something, you get better just by focusing on it. And research is the foundation and the seed for everything that comes.” (Local politician from municipality 2)

Therapists and rehabilitation unit managers also stressed the need for therapeutic qualification and approval of research projects. They argued that research should be directly related to therapeutic practices and have clear benefits for patient care and rehabilitation outcomes. This was perceived to help ensure that the research is grounded in real-world needs and challenges, making research findings more likely to be adopted and implemented effectively in municipal settings.

Consistent with the value the participants placed on early involvement, a current lack of infrastructure or formalised partnerships to support research-practice collaboration was also highlighted:

“The earlier we qualify some projects and talk together about what it could be and how we do it, the greater the chance of getting good data in. That, of course, challenges us because we do not have any research support, so how do we get involved early? Should each municipality then have one (employee with research competencies), or could we create a joint research unit? A joint research unit might make good sense”. (Rehabilitation unit manager from municipality 4)

Several participants also emphasized additional benefits of a formalized academic partnership between hospitals and municipalities. This includes improved clinical decision-making and more direct benefits for citizens. As one manager explained:

“But it also becomes more equal and value-creating when you start together compared to always being connected when all the good and professional decisions are made. The professional decisions are really what you are passionate about. They are made, and then we are informed. Therefore, I believe engaging in this (an academic partnership) will offer a new experience. You will probably go into it more engaged”. (Rehabilitation unit manager from municipality 4)

Despite challenges such as unclear benefits and the need for rapid research outputs, there was a generally positive attitude and clear potential towards engaging in future research and academic research-practice partnerships. This reflected a strong desire to address practice-oriented perspectives and make significant contributions to the research process.

Leveraging organizational structures and political goals

The participants all expressed that integrating academic research-practice partnerships into existing structures would be highly beneficial. They generally believed, that by leveraging existing organizational frameworks and processes, it would be possible to collaborate on research activities as part of the daily operations of rehabilitation units. This would minimize disruptions and maximize the use of available resources and expertise, altogether contributing to a more efficient and effective research process.

Simultaneously, health chiefs, directors, and politicians highlighted that research should not only address immediate therapeutic concerns but also align with broader health policy goals and perspectives of the municipality as well as hold long-term sustainability. This would ensure that research initiatives are brought to contribute to the overall improvement of health systems and services and provide lasting benefits. A local politician underscored this need, by highlighting the importance of ideas from frontline workers and employee support for research initiatives:

"I prefer that the ideas come from the professionals on the ground... Because if the employees do not buy into the idea, then forget it". (Local politician from municipality 1)

Motivating factors and anticipated outcomes

Professional development and recognition for therapists and rehabilitation unit managers

One of the key motivating factors for building academic research-practice partnerships, as identified by therapists and rehabilitation unit managers, was the potential for professional development. Therapists and rehabilitation unit managers consistently expressed that participating in scientific collaboration on rehabilitation research would provide them with access to the latest scientific knowledge and methods that could be integrated into their daily practice. They anticipated that an academic partnership would not only enhance their skills but also position them at the forefront of their field, contributing to more effective rehabilitation processes and better patient outcomes. Moreover, they saw academic partnerships as a means of strengthening professional recognition and fostering a sense of pride in their expertise. For example, one therapist highlighted the desire to generate a stronger evidence base for their daily practices:

"We do a lot in the therapy field for which there is no evidence, but we do it because we see good effects. However, it would be great to have it supported by evidence. I perceive that research is both about

confirming or refuting things, but it can also create development and new directions". (Therapist from municipality 6)

The data further revealed that practitioners were motivated by the opportunity to contribute to the advancement of their field and see tangible improvements in patient outcomes. This, in turn, would enhance their job satisfaction, as they expected to feel more valued and intellectually stimulated through their involvement in research activities.

Strategic and financial benefits according to politicians and leaders

In parallel, politicians, health chiefs, and directors recognized academic research-practice partnerships as beneficial not only for individual practitioners but also as a strategic opportunity for the municipalities. Several participants from these groups shared the perspective that a stronger research base could have a significant positive impact on municipal finances. For example, one politician reflected on the potential financial benefits of integrating evidence-based solutions into treatment and care, noting how this could lead to reduced healthcare expenses:

"I think there might be a lot of wasted or unnecessary work and resources that we could utilize much better through research. How can we best utilize resources, and how can we provide the best possible treatment for the citizen, which is the most important thing". (Local politician from municipality 5)

In addition, other participants at this level emphasized the increased visibility and recognition of municipalities, particularly at the national level, as an important motivating factor. They anticipated that greater visibility would help position municipalities and the primary healthcare sector as leaders in rehabilitation, attracting more financial resources and talented professionals. This, in turn, would strengthen the overall capacity and reputation of municipal health services. One politician elaborated:

"Focusing on research will indeed create an attractive workplace. We can see that if you do not have an attractive workplace, people will not apply. It is not necessarily salary that does it. It is more about development and the ability to do things in a more exciting way than we could otherwise". (Local politician from municipality 2)

Overall, the participants shared a consistent belief that formalized academic research-practice partnerships and increased academic partnership would enhance the quality of care and elevate the reputation of municipal health services.

Discussion

Findings from this study suggest that fostering academic partnerships in physiotherapy and occupational therapy rehabilitation is associated with several challenges, including cultural differences, limited research capacity within municipalities, and the extended timeline between research and

practical application. At the same time, participants highlighted the potential for practice-oriented research, professional development, and resource optimization highlight the value of such partnerships. This study contributes a detailed empirical account of how these dynamics are experienced by municipal interest-holders in a Danish healthcare context.

The current landscape for academic research-practice partnerships: challenges and potential

By aligning research agendas with the daily operations of rehabilitation units, academic partnerships could help bridge gaps between theoretical knowledge and practical application, thus enhancing the relevance and impact of research outcomes. Similar findings were discussed by Pauer et al (4), who emphasized the importance of aligning municipal needs with academic research in city-university partnerships, noting that stronger leadership commitment and formal processes for identifying shared interests can foster more mutually beneficial collaborations.

However, our findings also revealed critical challenges that might hinder development of effective and productive academic partnerships. A significant concern is the hierarchical imbalance between hospitals and municipalities. If hospitals dominate the partnership, municipal perspectives and needs may be marginalized, which can undermine the collaborative process and the applicability of research findings. This issue of hierarchical imbalance and its implications for academic research-practice partnerships have been previously discussed by Hutchins (9), who noted that such dynamics can lead to a misalignment of research priorities and practices. Findings in the current study echo these concerns, as participants from municipal rehabilitation units reported feeling overlooked in decision-making processes, especially in shaping research agendas. This marginalization can hinder their ability to influence research that directly affects their operational needs. Addressing this imbalance is crucial, as equitable partnerships not only ensure the inclusion of diverse perspectives but also enhance the practical relevance of research.

A 2018 review of national and international literature on cross-sectoral collaboration in healthcare tasks, as highlighted in a memo, aimed at inspiring the development of academic research-practice partnerships in the Central Denmark Region, identified several barriers that resonate with findings from this study. These barriers include complex collaborative relationships, conflicting goals and interests, skewed economic incentives, silo thinking and organizational self-interest, cultural differences and professional conflicts, as well as structural barriers (22). The current study confirms many of these barriers, emphasizing similar challenges. However, it also provides specific insights and strategies to address these issues. For instance, the current study advocates early involvement and continuous communication among interest-holders as essential strategies, aligning with DeBoer et al. (5), who emphasize the importance of shared goals, mutual trust, and ongoing engagement for successful academic partnerships.

Despite these strategies, the identified barriers from the review underscore the complex realities that can hamper effective academic research-practice partnerships (22). Addressing these barriers in practical terms likely demands more than just early involvement and communication. It requires strategic

approaches that include restructuring economic incentives to better align with collaborative goals, fostering cultural understanding to bridge professional divides, and reforming organizational frameworks to support integrated efforts. Thus, while the current study provides recommendations for improving academic research-practice partnerships, it also acknowledges that overcoming these deeply ingrained barriers will require comprehensive and multi-faceted strategies that address both the systemic and interpersonal dimensions of academic partnerships.

Strategic considerations and implications for policy and practice

In recent years, Denmark has seen a pronounced political emphasis on academic research-practice partnerships, particularly in patient care. This focus is reflected in initiatives such as the development of regional health agreements (23), which constitutes a formal framework for collaboration among regions, municipalities, and general practices.

The National Board of Health's strategy to enhance research in primary healthcare (3) further aligns with this study's objectives by aiming to improve healthcare quality and effectiveness through a coordinated national approach but provides limited guidance regarding how such ambitions can be operationalised and implemented. Notably, robust mechanisms for monitoring progress and evaluating impact are missing, highlighting the need for more precise and actionable strategies. Our findings underscore the need for structured processes and concrete plans for academic partnerships that can be effectively executed.

Moreover, our findings highlight the importance of academic research-practice partnerships to be informed by both local insights and international recommendations (25) and based on shared goals among partners as well as readiness to share sovereignty. Participants consistently emphasised the importance of early involvement, development of research questions that reflect practice need and fit within clinical workflows, organizational support, and continuous communication throughout the research progress. This aligns with established practices in successful research-practice partnerships (26), which stress the importance of collaborative leadership, integrating top-down and bottom-up approaches, and dedicating sufficient time for understanding and innovation.

A 2022 analysis by the Danish Centre for Social Science Research highlighted the strategic importance of ensuring equitable cross-sectoral involvement in health research, with municipalities playing a key role in shaping research priorities (27). Our findings align with this goal, emphasizing the need to strengthen municipalities' capacity for meaningful research engagement.

Our findings indicate that it is crucial for municipalities to engage as equal partners, both strategically and operationally, ensuring they contribute actively rather than merely serving as case studies or data providers. By aligning research priorities with clinical needs and fostering a collaborative environment, municipalities can optimize resources and improve healthcare delivery across sectors. Although the case of physiotherapy and occupational therapy serves as a specific example, the principles of

integrating research into operational activities can be broadly applicable across other areas of primary care or in other countries with similar decentralized healthcare systems.

A Danish study examining collaboration between public healthcare institutions and civil society organizations in rehabilitation highlighted the importance of political support for successful co-creation (28). Our findings suggest that this principle also applies to academic partnerships, where political and managerial endorsement is essential for allocating resources, fostering long-term commitment, and ensuring that research priorities align with practical needs. Furthermore, a structured approach to co-creation is needed to systematically integrate research activities into daily operations, thereby minimizing disruptions and maximizing resource utilization (28).

Mandating independent research obligations for municipalities would require considerable local capacity building and resources, while building or strengthening research-practice partnerships for research appears to be a more viable approach. Leveraging existing organizational frameworks can minimize disruptions and maximize resource utilization. Emphasizing co-production and collaborative problem-solving can further enhance the effectiveness and sustainability of these partnerships (16). Increased public support for research in municipal health tasks, such as rehabilitation, would be a relevant point of departure, as these areas are already interconnected with other municipal responsibilities like employment, sickness absence, and elder care. Evidence-based solutions could help optimize resource use in these economically burdensome areas.

Strengths and limitations of the study

The qualitative interviews provided rich information on participants' views of research and academic research-practice partnerships to improve patients' physiotherapy and occupational therapy rehabilitation. The study includes a diverse range of interest-holders involved in rehabilitation processes across multiple municipalities, ensuring a comprehensive perspective on academic research-practice partnerships.

Applying a qualitative descriptive approach allowed for a nuanced exploration of participants' perceptions, attitudes, and challenges regarding cross-sectoral research. This methodological choice facilitated a rich understanding of the current landscape of academic research-practice partnerships and identified key areas for potential improvement of strategic alignment between research priorities and practical needs.

Due to the interviewer's background in research and the focus on potential future academic partnerships, participants might have been inclined to provide responses that aligned with perceived research norms or expectations. Although social desirability bias cannot be excluded, participants openly discussed both opportunities and concerns related to future research-practice partnerships and appeared to view the interview as an opportunity to discuss potential improvements in practice. However, interviews were conducted solely by the first author, who also handled the primary data analysis, managing both roles could affect data reliability. To address the potential for bias, a second researcher was involved in the

analysis process, to secure thorough discussions, critical feedback and perspective on the interpretation of the emerging codes and themes

Conclusion

This study highlights both opportunities and challenges associated with establishing academic partnerships between hospitals and municipalities in the context of physiotherapy and occupational therapy rehabilitation.

While challenges such as cultural differences, limited research capacity, and the long timeline from research to implementation persist, the findings highlight a strong desire among municipal interest-holders to engage in research that is relevant, timely, and grounded in practice.

By aligning research agendas with the operational needs of rehabilitation units, these partnerships can enhance the quality and applicability of research outcomes. This study contributes to the growing body of literature on research-practice partnerships, offering a detailed account of how municipal actors perceive and navigate the prerequisites for sustainable academic engagement.

Moving forward, it is essential to address hierarchical imbalances and ensure that municipalities are not merely data providers but active partners in shaping research. Policymakers should provide strategic frameworks and resources that enable long-term, practice-oriented collaboration. Strengthening academic partnerships may support more practice-relevant research and contribute to closer integration but also contribute to a more integrated and responsive healthcare system.

Declarations

Ethics approval and consent to participate

According to Danish legislation (29), no ethical approval from the Regional Scientific Ethical Committee should be sought for this type of project, that is based on informed participant consent. The research project was registered at the Region of Southern Denmark's list of research projects on June 15, 2023, with registration number 23/28322. The participants were informed by providing written and oral information, and written consent was obtained prior to all interviews. All participants were informed that they could withdraw their consent at any point during the study period without consequences for a future academic partnership.

Data is protected in accordance with GDPR legislation (General Data Protection Regulation, EU 2016/679) to ensure the confidentiality and security of all participant information (30).

Consent for publication

All participants provided informed consent for publication. This consent ensured that their contributions could be used and shared in the final report, respecting their privacy and the ethical guidelines of the research.

Availability of data and materials

The qualitative data generated and analysed during the current study are not publicly available because they contain sensitive personal information that cannot be fully anonymized. Participants did not provide informed consent for public data sharing, and the processing of personal data is governed by the General Data Protection Regulation (GDPR) and institutional data protection policies. Data may be made available from the corresponding author upon reasonable request, subject to approval by the data controller and applicable legal and ethical requirements.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

KGI initiated the 'Building Research Partnerships Across Sectors' project. SdPK and KGI developed the study protocol and conducted the interview guide. SdPK conducted the interviews. SdPK analysed the data with assistance from KGI. JH supervised the process focusing on co-production and its framework. CO supervised the process with a focus on academic research-practice partnerships. SdPK drafted the manuscript with revisions from KGI, JH, and CO. All authors read, contributed to, and approved the final version of the manuscript.

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