

Involving clinical staff members in the management of low back pain in general practice: a qualitative interview study

Randi Hessellund Knudsen

Research Unit for General Practice in Aalborg

Janus Laust Thomsen

Research Unit for General Practice in Aalborg

Camilla Aakjaer Andersen

Research Unit for General Practice in Aalborg

Tamana Afzali

Research Unit for General Practice in Aalborg

Allan Riis (✉ ariis@dcm.aau.dk)

Research unit for General Practice in Aalborg <https://orcid.org/0000-0002-7009-3025>

Research article

Keywords: Low Back Pain, Interview as Topic, Nursing Staff, General Practice, Primary Health Care, Disease Management

Posted Date: September 24th, 2019

DOI: <https://doi.org/10.21203/rs.2.14886/v1>

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Abstract

Background Low back pain (LBP) is the leading cause of disability worldwide. Patient education and self-management have the potential to improve the care of patients. However, little available time for consultations challenge the delivery of optimal care in general practice. Involving clinical staff members in the management of diabetes and of patients with hypertension has shown to be feasible.

Consequently, involving clinical staff members in providing education and information to patients may improve the delivery of patient information and education. However, this require a shift in the division of tasks and general practitioners' (GPs') barriers and facilitators for this is currently unknown. The aim is to explore GPs' experiences of including clinical staff members in the management of LBP. **Methods** This is a qualitative, semi-structured interview study. We used a phenomenological approach to guide the data collection and the analysis in order to gain insight into the subjective experiences of the GPs and to understand the phenomenon 'delegating tasks to practice staff' from the GPs' lifeworld. Analysis was conducted using inductive descriptive methods. **Results** We conducted five 60-minute interviews with Danish GPs. All GPs had experience with task delegation, but it varied which tasks the GPs delegated and to which types of clinical staff members. The following barriers towards clinical staff member involvement were identified: Patients with LBP is a heterogeneous group with a variety of treatment needs, the examination and treatment can be considered as one coherent process, and it would require external support. Involving clinical staff members can release GP time. Another facilitator was the possibility for improving the uptake of clinical guidelines and involvement of practice nurses was considered to improve the provision of patient education and lead to greater patient self-management. **Conclusion** While some GPs currently consider delegation to clinical staff members a good idea in the treatment of LBP, others prefer the existing treatment strategy without clinical staff member involvement. Consequently, healthcare providers need to address existing barriers and facilitators for involving clinical staff members when advocating for a future multi professional treatment strategy of LBP in general practice. **Trial registration** Not applicable.

Background

Low back pain (LBP) is very common and is the world's leading cause of disability [1]. In Denmark, LBP is the reason for 9.5% of consultations in general practice. The proportion of Danes with LBP is increasing [2,3]. Furthermore, LBP is one of the leading causes of disability in all high-income, high-middle-income, and middle-income countries [4].

Treatment based on clinical guidelines, including patient education and support to self-manage, have the potential to improve the care of patients with LBP [5–8]. Internationally, studies to support the implementation of LBP guidelines have, however, found modest positive results [9,10]. High workload and little available time for consultations have been argued to challenge the delivery of optimal care [11]. In Denmark, an intervention aimed at Danish general practitioners (GPs) approximately halved the referral of patients to secondary care and reduced costs (£–93.20 per patient) with no negative effects on pain or functional level of the patients [12]. This previous study applied a multifaceted intervention, which

included as a key component multi professional outreach visits to general practices in order to educate GPs about guideline-endorsed treatments including providing patients with high quality information. We believe this intervention can be further improved by integrating it into the organisation of the GP clinics by enhancing the function of the multi professional team in the general practice [13] and utilisation of the increasing number of available clinical staff members [14].

Involving clinical staff members in the management of some chronic diseases such as diabetes and of patients with hypertension has shown to be feasible [14-16]. Consequently, involving clinical staff members in providing education and information to patients with LBP can also improve the partnership with patients by focusing more on patient information and education [15]. However, this requires a shift in the division of tasks in general practice and GPs' barriers and facilitators for this is currently unknown [16]. The aim of the present study was to explore GPs' experiences of including clinical staff members in the management of LBP in general practice among GPs already delegating tasks for patients with other conditions.

Methods

Theoretical Framework

This is a qualitative, semi-structured interview study. We used a phenomenological approach in the data collection and the analysis in order to gain insight into the subjective experiences of the GPs and to understand the phenomenon 'delegating tasks to practice staff' from the GPs' lifeworld [17-18]. Prior to the study, the interviewer declared her pre-understanding of the field and the expected findings (Additional file 1) to allow for later validation of findings. This study is reported according to the consolidated criteria for reporting qualitative research (COREQ) reporting guideline [19].

Interviewer and research team

All interviews were conducted by RHK, as part of her medical master thesis. RHK had no prior experience with interviewing, besides the experience with taking patients' anamnesis. RHK was supervised by JLT (GP and professor), CAA (GP in training and PhD student), TA (health economist), and AR (Physiotherapist and PhD). CAA is experienced in conducting interviews. JLT, CAA, and AR are experienced in analysing qualitative data. RHK had no prior knowledge of the participants.

Participant selection

GPs working in The North Denmark Region were eligible to participate. In Denmark, general practices are gatekeepers to specialist care in primary care and to hospital care through a referral system. This maintains the GPs' role as first point of contact to health care and supports the idea of continuity of care by a family doctor [20]. The majority of GPs are self-employed and thereby practice owners. Consequently, GPs are able to organise their practices and manage patients in a manner most suited to them [20].

Participants

GPs who had finished general practice/family medicine training, were practice owners (collaborative, partnership, or solo practice), were active practitioners in general practice, and had clinical staff members performing clinical tasks (e.g. diabetes controls) were eligible for inclusion. We excluded participants working in a general practice with another participant and participants working in a general practice with a researcher from The Center for General Practice at Aalborg University. Eligible GPs were identified by JLT and AR and through public homepages. Seventeen eligible GPs were selected based on variation in their background characteristics with the aim to recruit at least one GP for each category of the baseline variables (Table 1). Possible participants were contacted by e-mail and/or telephone by RHK. Consequently, a relation was established before study commencement. The participants were told that the interviewer was a medical student and the interviews were conducted as part of her master thesis.

Sampling

We aimed to recruit five GPs based on the concept of information power [21]. We applied a narrow research question and we expected a strong dialogue with RHK familiar with the terminology but being a medical student placed not too close to the field. This to support a strong and clear communication. Sampling was established with specific aspects of demographic variation in mind [21].

Interviewing

To support and maintain the GPs' role as healthcare professionals in their natural work environment, interviews were conducted in the GPs' own consultation rooms [17]. The GPs were seated in their usual chair and the interviewer in the patients' chair. No other were present in the consultation room during the interviews. An interview guide (Additional file 2) was developed for this study through discussions in the research group and pilot tested on CA. The interview guide included open questions that allowed the participants to elaborate using examples from their clinical routines. Questions involving possible conflicts were saved for the last part of the interview. The interview guide was adjusted after the pilot test and after each interview as new knowledge emerged. During the interviews, RHK continuously summarized the participant's accounts to secure correct understanding and interpretation. RHK conducted, audio-recorded and transcribed all interviews. Transcription was conducted verbatim using SoundScriber software (SOFTPEDIA). No field notes were made. Transcripts were not returned to participants for comments and corrections, and participants did not provide feedback on transcripts or findings.

Data analysis

Interview data was analysed by RHK using an inductive thematic analysis based on descriptive phenomenology [18]. RHK familiarized herself with the data through several rounds of reading and identification of preliminary codes in the transcribed interviews to achieve a deeper understanding of the GPs described experiences. RHK identified codes using Nvivo 12 software (Alfasoft AB, Gothenburg,

Sweden) and organised these codes into preliminary themes in search for meaning and understanding. These codes and themes were discussed with AR and TA and subsequently redefined, re-organised, and labeled. After re-reading the transcriptions and adjusting the themes accordingly, RHK made a descriptive text including the participants' experiences within each identified theme. To validate the final analytical results, the transcriptions were re-read and re-coded by CAA looking for contradicting evidence. Findings were discussed with RHK and AR and incorporated in to the final analytical text.

Results

In October 2018, we conducted 60-minute interviews with five GPs. The participants had a median of 7 years [range 2-27 years] of experience as GPs and they varied in other baseline characteristics (Table 1). All interviews were conducted as planned. By the last interview, no new knowledge emerged. After the analysis, data saturation was discussed and agreed upon between RHK, CAA, and AR. Three GPs refused to participate because of high workload in their practices. There were no drop-outs.

The GPs all described having experiences with delegating assignments and patientcare to nurses and other staff working under their supervision. While some GPs were eager to delegate, others were more reluctant to delegate tasks. Some GPs also described having many patients with LBP but none of the GPs were currently delegating care of this patient group to their staff. Through the analytical process, the following main themes derived: *General practice organisation; delegation to clinical staff members; GP/patient relationship; exercise instruction; Clinical pathway for patients; and external support*. Subthemes within each theme are illustrated in Figure 1.

General practice organisation

All GPs had experience with delegating tasks to their clinic staff, but it varied which tasks the GPs delegated and to which types of clinical staff members. The GPs described how they typically delegated tasks to relieve the pressure on themselves, and how a generally increasing work load in general practice with e.g. the outsourcing/relocation/transference of healthcare from secondary care to general practice had increased the need for delegating tasks to the clinic staff. However, because of the tasks that had already been delegated to the clinics' staff and the balance between these, their readiness for taking on new tasks were affected:

'right now I would think that there is a longer waiting time for our nurses, than for ourselves (...) right now we are holding back on giving them tasks' (E)

Even though the GPs would like to delegate more tasks to their staff, economic concerns and the physical space in the clinic could limit the expansion of staff.

All the GPs described having experiences with patients with LBP. The patients were typically seen by the GP for 'emergency sessions' when the symptoms appeared and the GPs rarely scheduled follow-up sessions. However, several patients returned to the general practice after having completed treatments

with the physiotherapist. Some of the GPs described how patients with LBP have a strong presence in the clinical everyday life:

'it's an incredible amount of people, and they have an immensely strong presence in our work day (...) in comparison to so many other conditions (...) but low back pain really has volume' (B)

Meanwhile, others did not experience that patients with LBP constituted a group of patients to be sufficiently large to necessitate a change in the current management strategy:

'it (...) is [not] at the top of the list of things I would think, I could delegate to the nurse (...) because it does not take up enough time, even though we see some, you know, we see the problem regularly, but they do not go through long courses of treatment most of them (...) I cannot see that it would change much' (D)

The GPs described how it is difficult to manage a sufficient back examination within the time frame they have in general practices, and how conversations about LBP often demand extensive explanation to the patient. One of the GPs described how delegating treatment of LBP to the clinic staff would be a new way of involving the staff that is not straight forward, as it involves complex problems. On the other hand, the GP also described how the patient often needed a more pedagogical than medical effort.

Delegating to clinical staff members

The GPs described how the tasks they delegate to the clinic staff depend on the staff's professional and individual competencies. Most commonly, GPs delegated tasks to nurses and some also delegated to care assistants. One of the doctors also had a medicine student employed.

The GPs explained how the tasks and patient population had to be clearly defined, stable and uncomplicated in order for it to be possible to delegable. There also had to be a certain volume in order for the staff to gain experience with the task.

'there has to be a homogeneity to the patient group, and there has to be some volume of patients to be suited for delegation' (B)

One of the doctors described how delegating a task to the clinic staff required proper training of the staff, and required that they had supporting tools e.g., flow charts clearly defining patient course of treatment as well as 'red flags' that entails physician involvement. Furthermore, the GPs explained that delegating task required trust and confidence in the clinical staff and their abilities to acknowledge the limits of their own competencies. Some GPs had scheduled appointments for supervision with their clinic staff, meanwhile all performed ad hoc supervision.

The GPs described how delegating a task required training of the clinical staff in the form of theoretical teaching and supervised consultations. The GPs had developed and defined this training themselves and described this training as an investment. Consequently, one of the GPs mentioned how it should not be for temporary staff i.e. medicine students:

'Training takes time and resources (...) it should be for the permanent staff' (C)

The doctors primarily had experience with delegating tasks to the nurses. One of the doctors described how especially the nurses were suited for taking on independent tasks because of their extended education in comparison to other staff groups:

'we choose two nurses because we believe that they have an education (...) that makes them able to handle these things' (E)

The GPs described how the nurses were good at following set procedures and at knowing their own limitations, but they also described weaknesses in the nurses' basic training. Several GPs stated that nurses were not trained to diagnose:

'I might fear (...) that we still would risk... losing some, but also risk over-diagnosis (...) I think the nurses have more of a tendency to do that than the rest of us' (A)

Some GPs consequently questioned if the nurses would be able to manage the first diagnostic consultation with the patient and thereby performing triage, while others could see the nurse as a medical officer in advance of a consultation with a doctor. Several GPs could imagine the nurse conducting follow-up consultations including information and guidance:

'[it] could provide the patient with a coordinator, who could offer (...) the individual patient some more opportunities for contact than I am able to. [The patient] gets worried (...) so I could see the nurses having competencies, which would be good for accommodating that (...) as some of the patients have a need for more frequent consultation, which I am not able to offer them' (B)

The GPs did however describe that it would require extensive training of the clinical staff members before delegating the treatment of LBP.

GP/patient relationship

The doctors described how delegating tasks to the clinic staff had consequences for their knowledge of the patients and consequently the continuity and doctor-patient relationship.

'it [also] may harm the continuity, you do get a little out of touch (...) because you hand over [the patients], and then it is suddenly [the nurse] who knows them the best' (D)

One GP described how the knowledge of the patients' history and the complete medical overview are prerequisites for diagnostics in many of the patients' cases.

Some GPs described how delegating tasks and patients to the clinic staff affected the tasks they were left with. One of the doctors mentioned how the delegation of the simple tasks to the clinic staff members entailed that the doctors were treating all the complex problems:

'now we have moved the easy stuff (...) and then it is replaced with something which is more complex. That is always the risk' (A)

Another GP experienced great satisfaction in seeing patients with LBP and performing manipulation. This GP was reluctant to hand over these patients to a clinical staff member.

Exercise instruction

GPs described how exercise instruction was part of the treatment for patients with LBP. However, the short timeframe for the GP's consultation compromised the delivery of exercise instructions. The GPs who instructed in exercises, did this very quickly and often by recommending websites with exercise programs.

'I partly use different web resources (...) with good instruction videos (...) generally I stick to (...) I do not have half an hour like the physios do, so I give one to three exercises max (...) because I do not have the time' (B)

GPs explained how instructing the patients on exercises were within the physiotherapists' remit and that they often referred patients to them. They also said that they both refer patients to physiotherapists for complete low back examinations and assessments as well as exercises/training. Several of the GPs described how they often instructed patients in a few exercises, which the patient could use while they were waiting for an appointment with a physiotherapist. One of the GPs explained that patients would restrict from doing exercises if they were not properly instructed.

Other GPs preferred not to step into the physiotherapists' area of expertise. Partly because physiotherapists traditionally perform exercise instruction and partly because physiotherapists are more skilled for this tasks and had the necessary setting.

'I do not [think] that it is our job (...) I [think] the physiotherapists can do it better (...) that what we would do, would be a light setup (...) when you go to a physiotherapist, (...) they have some training equipment' (A)

The interviewed GP thought that physiotherapists employed in general practices could help with the diagnostics:

'If there were to be a physiotherapist here, (...) then it should be for diagnostics and not for treatment' (A)

However, the GP's did not think that they had enough patients for hiring a physiotherapist in their clinic, but that a physiotherapist would be suitable in a large practice with a large patient base.

Clinical pathway for patients

Even though the GPs described that they frequently consulted patients with LBP, they rarely scheduled new appointments and thereby creating a predetermined LBP treatment course in general practice.

'I don't see particularly many patients with LBP in what I would call predetermined treatment courses' (A)

The GPs described how they let the patients transfer to treatment by the physiotherapist but gave the patients the opportunity of returning to the clinic on their own initiative:

'[we] agree to talk at a later time. I do not give them a new time for an appointment (...) we have such easy access here (...) so I would say "well, let's talk in a couple of weeks', or "we should see each other again if it is not better by then' (...) if they are in the process of a good successful treatment with the physiotherapist, I don't necessarily need to see them again after 14 days' (A)

If the GPs scheduled a new appointment for a follow-up, it was mostly given as a precaution for the patient and not necessarily as a planned clinical pathway:

'I would offer him or her a new control session 14 days after, because then they sort of get a feeling of (...) them having some safety net, that they can come back' (C)

The GPs believed that involving clinical staff members could enable systematic treatment course for LBP. This could improve the treatment of patients:

'it would be motivating for patients, and that they are able to come back and talk about 'well, I did not quite understand the thing he showed me' or 'it hurts when I do it' (...) it is definitely possible to imagine that it would be helpful that they see a nurse who would be able to do a follow up' (C)

Several of the GPs did however think that it was important to consider how this should be organised in terms of the division of work between the GP and the clinical staff member:

'our collective agreement with the public health care providers, is not suited for patients first [having] ten minutes with the [nurse] and then ten minutes with me' (B)

GPs said that delegation could potential cause confusion when patients were to see different health care professionals in the same house. Furthermore, delegation of work could lead to too much repetition of tasks.

'you would definitely have to be aware that if you divide it too much, what the risks are for both the patients' sake and in terms of duplication of work' (A)

External support

The GPs described how they usually introduced a training program and support tools for the staff prior to delegating tasks. These were developed by the GPs or adapted from clinical guidelines. The GPs also described how they previously had used formalised courses for practice staff. As the GPs considered delegating treatment of LBP to staff members a larger task, they called for help and support from outside the clinic e.g. in the form of clinical guidelines:

'It would be highly relevant to have a proper guideline from the national society for general practitioners' (B)

One of the GPs described how the challenge could be addressed by courses for the clinical staff and a proper plan for how tasks are delegated:

'you could solve that challenge by letting an employee in the regional quality unit for general practice arrange a course for clinic staff members and make a model for implementation' (C)

Another GP said that courses for clinical staff members could strengthen the overall knowledge in the practice:

'we [also] learn from our nurses (...) it could also be them who took a course and came back and taught us how you (...) divided management of LBP into different things and then moved forward, and in that manner I actually also think that you would reach most possible general practices if it was the staff you reach out to' (E)

Several GPs expected their future work to entail managing more patients with LBP as a part of a negotiation of collective agreements with the national health care providers. However, GPs were uncertain to which extend and they described lacking structure and alignment in this area:

'what you (...) could have use of, and that might be in the program for course of treatment (...), that is (...) a structured stratification of what non-specific LBP is. Who should be sent to secondary sector, on which indication should they be sent, when should we talk to the back surgeons (...) so that it would be easy for the staff to know when they should knock on the door (...) that I would (...) like to see schematically' (B)

'it is a help with things like a flowchart and that it is set up in a schematic manner' (E)

Generally, GPs were interested in enhancing their knowledge about LBP:

'We only know what we know, you know we have to handle a lot of different tasks, it would be really good for all of us to be upgraded in this field' (B)

Discussion

Principal findings

This study describes that GPs consider patients with LBP a heterogeneous group with a variety of treatment needs and a patient group without predetermined content or frequency of consultations, this can be a barrier for delegating these patients to clinical staff members. In addition, some GPs consider the examination and treatment of patients with LBP as one coherent process, which further challenge the division of work between health care professionals. Another barrier for delegating the management of LBP to clinical staff members is the need for clinical support to the practices in terms of staff training and suggestions for specific internal delegation guidelines. Some GPs expressed that the use of clinical

staff members to instruct in exercise was considered a light version compared to referring the patients to a physiotherapist. Letting go of all their easy patients was also considered a barrier for some GPs. Some GPs had a large volume of patients with LBP. Consequently, involving clinical staff members could release GP time. Another facilitator of involving clinical staff members was the possibility for improving the uptake of clinical guidelines. Involvement of clinical staff members with a practice nurse education could improve the provision of information to patients and lead to greater self-management among patients with LBP.

Strengths and weaknesses of the study

A population of GPs with a variation in baseline characteristics were recruited to this study. We took several precautions to insure a strong dialog in the interviews: All interviews were conducted in the GPs' own environment, the interviewer was a medical student with plans of becoming a GP, which was considered to make an alliance, and increase the confidence as the interviewer was considered 'one of us'. At the same time, a medical student would be someone the GPs would be eager to help and explain their considerations to without the use of esoteric expressions. It was a weakness of the study that only one researcher (RHK) did the initial analysis, however, after initial analysis CAA recoded and checked the analysis. Even though, no new information emerged in the last interview, five participants were a small sample. We need to acknowledge that more participants could have resulted in new information. Prior to this study, RHK wrote her pre-understanding (Additional file 1) and this was later compared to the findings of this study. The findings of this study is substantial different from the pre-understanding, this validates the analysis process and is considered a strength.

Strengths and weaknesses in relation to other studies

A previous study on the association between degrees of task delegation and satisfaction of GPs found that greater clinical staff member involvement was associated with increased job satisfaction of GPs [22]. In line with this current study, GPs applied a great variation in the degree of task delegation in clinics [22]. The more positive responses to task delegation in the previous study can be explained by their use of chronic obstructive pulmonary disease as the condition [22]. Patients with chronic obstructive pulmonary disease can be considered a more homogeneous group compared to patients with LBP and the management with specific examination for chronic obstructive pulmonary disease and life style advices may be easier to structure and delegate. Consequently, providing general practice with structuring tools and delegation guidelines can enable them in successfully involve clinical staff members in the management of LBP. However, accordingly to GPs, clinical staff member involvement is most suited for follow-up consultation. This is in line with findings from a survey among GPs regarding the role of practice nurses [23].

Meaning of the study

In our study, one GP expressed concerns about exercise instruction being provided in general practice instead of in a physiotherapy practice. However, improving treatment in general practice does not

necessarily reduce the use of primary care physiotherapy or chiropractic management. On the contrary, a combined strengthening of all three major primary care health care professionals may lead to achieve the overarching aim to reduce unnecessary referrals of patients with LBP to secondary care [8] and taking a multi professional approach in the treatment of LBP is supported by international guidelines [8]. Meanwhile, patients seek a variety of healthcare professionals, in Canada about 54% of patients with chronic LBP seek care only with a GP and between 16-20% seek combined care with a GP and a physiotherapist or chiropractor, while less than 3% sought care only with a physiotherapist or a chiropractor [24]. Consequently, supporting GPs in managing LBP is essential and releasing GP-time is furthermore important in addressing the shortage of GPs [25].

Unanswered questions and future research

Strengthening the treatment in general practice may create more attention towards which patients benefit from supplementary treatment in primary care. Involving physiotherapist in the management of LBP can lead to patient involvement in decision-making and more satisfied patients [26]. Furthermore, involvement of practice nurses can lead to a reduction of unnecessary ordering of diagnostic imaging [27], but the involvement of clinical staff members may require addressing patients' expectations in particular if clinical staff members are to assess and triage the patients [28]. The implementation of a broad clinical staff involvement can be done by conducting intervention workshops or by more complex interventions [16]. However, the effects of these interventions needs to be further proven in future clinical studies.

Conclusions

While some GPs currently consider delegation to clinical staff members a good idea in the treatment of LBP, others prefer the existing treatment strategy without clinical staff member involvement. Consequently, health care providers need to address existing barriers and facilitators for involving clinical staff members when advocating for a future multi professional treatment strategy of LBP in general practice.

List Of Abbreviations

GP; General practitioner

LBP; Low back pain

Declarations

Ethics approval and consent to participate

GPs received written and verbal information about the study at least one day before the interviews and GPs provided written consent before being interviewed. The manuscript does not include patient data. Consequently, the local Ethics Committee in The North Denmark Region has stated that ethics approval

was not required for the study. This study is recommended by the Danish Committee of Multipractice Studies in General Practice (MPU 04-2017). Principles of confidentiality and anonymity are applied. The study follow Responsible Research and Innovation and the Danish Code of Conduct for Research Integrity. Reporting and storage of data in accordance EU Guidelines on FAIR Data Management in Horizon 2020' (Version 3.0, 26. July 2016).

Consent for publication

Not applicable.

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The others authors declare that they have no competing interests.

Funding

The Danish Rheumatism Association (R168-A5653) funded this project and AR was funded by a post doc grant from The Novo Nordic Foundation (NNF170C0024422). The funding bodies played no role in the study design, writing of the manuscript, or the decision to submit the manuscript for publication.

Authors' contributions

RHK, JLT, and AR initially conceptualized this manuscript. RHK, JLT, and AR recruited GPs to the project. RHK, CAA, TA, and AR drafted the interview guide. RHK conducted and transcribed the interviews. RHK and CAA analysed the data, supported by TA and AR. All authors read and approved the final manuscript.

Acknowledgements

Not applicable.

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Tables

Table 1. Baseline characteristics

Note: Sampling was conducted to achieve a variation in GPs' gender, age, city size, and type of practices.

Selection parameter		Number of GPs
Gender	Male	3
	Female	2
Age	≤50 years	4
	>50 years	1
City size	≤10.000 citizens	1
	>10.000 citizens	4
Type of practice	Collaborative	3
	Partnership	1
	Solo	1

Table 2. The analysis.

Note: In step one, the text was read, preliminary categories were identified, the text was coded, and quotes were identified. In step two, coding of text was placed in the initial categories. In step three subthemes were identified. In step four new main themes were identified. In step five the text was re-read and the main themes were

corrected. Finally, the narrative was written.

Additional Files

Additional file 1. Pre-understanding

Note: The pre-understanding of the interviewer (RHK) was stated in writing prior to conducting the first interview.

Additional file 2. Interview guide

Note: The Interview guide is constructed around themes, narrowing down from broad background knowledge about the GP to narrow, specific questions, first about patients with back and lastly about future implementation of course of treatment. This is an abbreviated version of the interview guide without keywords aiding the interviewer.

Figures

Category	Code	Qoutes	Sub themes	Main themes
<p>Important before the nurse can assess patients with low back pain (LBP)</p>	<p>Extensive task to create a course and to educate on a new subject. It will be easier to apply an external training Programme.</p>	<p>C: 'you could solve that challenge letting an employee in the regional quality unit for general practice arrange a course for clinic staff members and make a model for implementation'</p> <p>E: 'we [also] learn from our nurses (...) it could also be them who took a course and came back and taught us how you (...) divided management of LBP into different things and then moved forward, and in that manner I actually also think that you would reach most possible general practices if it was the staff you reach out to .'</p> <p>B: 'We only know what we know, you know we have to handle a lot of different</p>	<p>Training/courses</p>	<p>External support</p>

		tasks, it would be really good for all of us to be upgraded in this field'	
Important before the nurse can assess patients with LBP		<p>B: 'It would be highly relevant to have a proper guideline from the national society for general practitioners'</p> <p>B: 'what you (...) could have use of, and that might be in the program for course of treatment (...), that is (...) a structured stratification of what non-specific LBP is. Who should be sent to secondary sector, on which indication should they be sent, when should we talk to the back surgeons (...) so that it would be easy for the staff to know when they should knock on the door (...) that I would (...) like to see schematically'</p> <p>E: 'it is a help with things like a flowchart and that it is set up in a schematic manner'</p>	Instruction/material

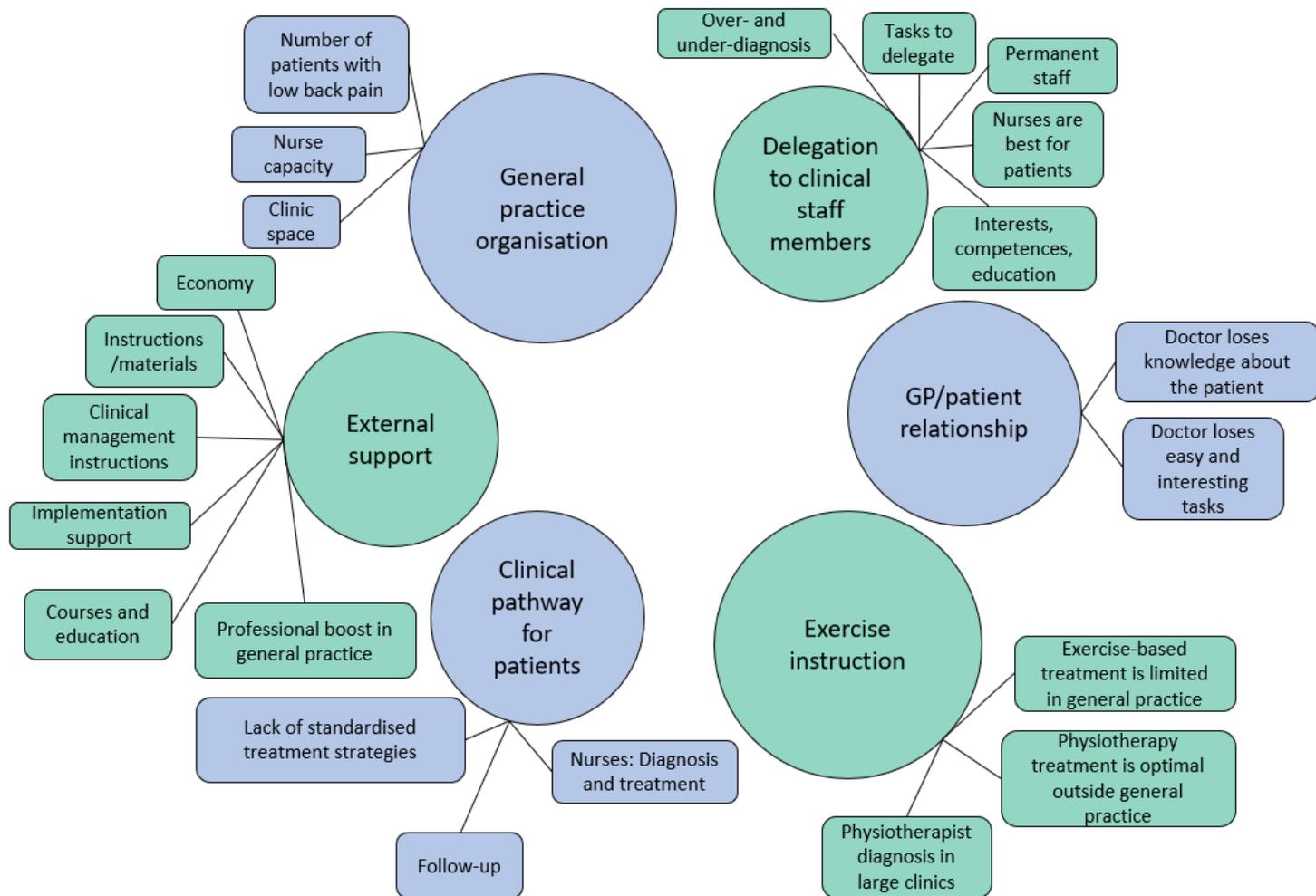


Figure 1

Themes and subthemes Note: Six themes and 22 subthemes were identified.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [Additionalfile1.docx](#)
- [Additionalfile2.docx](#)
- [Reportingguideline.docx](#)