

RESEARCH

Open Access



It's not the task, it's the shifting: Exploring physicians' and leaders' perspectives on task shifting in emergency departments in Norway

Elin Saga^{1*}, H. Ösp Egilsdottir², Pia C. Bing-Jonsson³, Espen Lindholm⁴ and Kirsti Skovdahl⁵

Abstract

Background Task shifting is an approach where specific tasks are transferred, when convenient, from health workers with high qualifications to health workers with less training and lower qualifications. This approach is mainly used to utilize the available human resources for health. Tasks that are traditionally linked to the physician role have increasingly been transferred to registered nurses during the last decade. Knowledge regarding the experiences and reflections of physicians and their leaders related to giving up tasks or how such policies can best be implemented is limited. This study aimed to explore physicians' and their leaders' perspectives on task shifting, especially to registered nurses, in different Norwegian emergency departments.

Methods The study was carried out from June to October 2022. It had an explorative and descriptive qualitative design and an inductive approach, semi-structured interviews was used. The study involved ten physicians and leaders from three different regional hospitals in south-eastern Norway. Manifest and latent content analysis were used to analyse the data. The COREQ guidelines were applied in the study.

Results From the three categories 1) The rationale for task shifting, 2) Teambuilding and 3) Implementation of task shifting, with nine subcategories. One overall main theme emerged: It is not the task, it is the shifting – moving towards a person-centred culture.

Conclusions The study indicates that developing a person-centred culture and fostering a team approach in emergency departments is more important than simply shifting tasks, as task shifting may lead to fragmented care and resistance from physicians. Hospital leaders must invest time and effort into organising teams and providing clear leadership to support the redesign of professional roles, recognising the cultural and traditional challenges involved. Policymakers should promote guideline development, team training programs, and cooperation methods to support a person-centred culture and effective task shifting in emergency departments.

Keywords Emergency unit, Person-centred care, Organisation culture, Qualitative research, Teambuilding, Task shifting

*Correspondence:

Elin Saga

Elin.Saga.Utklev@siv.no

Full list of author information is available at the end of the article



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

Background

Countries at all levels of economic development are facing a growing need both for well-qualified healthcare professionals and to optimize human resources [1]. The global shortage of healthcare professionals poses a challenge to current organisation and delivery of healthcare services [2]. It is therefore urgent to identify approaches that support a sustainable use of healthcare professionals' competencies [3]. Task shifting in the healthcare services has been identified as one of many approaches [4]. Task shifting is defined as "[the] delegation of tasks, and sharing roles within health professions, between different groups of health professionals, and also shifts to patients or to machines" [5]. The context of care for task shifting affects what tasks are relevant to shift from one healthcare professional to another. When examining task shifting in a specific care context, it is crucial to consider the views of the health professionals involved and the effects task shifting may have on the organisation of healthcare within that context. Research studies on task shifting from physicians to registered nurses in emergency department settings in high-income countries are limited, but the existing evidence shows that task shifting can be successful and potentially result in increased quality of care and cost savings [1, 2, 6].

Research exploring task shifting between physicians and registered nurses in acute care hospitals in nine European countries demonstrated that partial rather than full task shifting is already practiced in registered nurse-led follow-up of breast cancer and acute myocardial infarction [7]. Task shifting can strengthen healthcare services when accompanied by adequate planning, resources, education, training and transparency [8]. Previous studies highlight challenges with professional boundaries in the process of task shifting [8], indicating a need for understanding emergency department culture to influence the capacity to improve patient outcomes and safety [9]. Economic resources and access to healthcare professionals are important driving forces to look at new ways to a) utilize the competencies of registered nurses and physicians and b) ensure the sustainable organisation of healthcare services. When reviewing the literature, task shifting seems to be an efficient approach to addressing the issues of how to utilize different competencies and to create a sustainable healthcare service [2, 8].

Registered nurses with continuous professional education at the master's degree level, such as Nurse Practitioners [10] anaesthetic nurses [11] and nurse midwives [12], undertake tasks traditionally performed by physicians. Two examples of task shifting are nurse-driven injection clinics, [13, 14] and emergency department nurse-led femoral nerve blocks in hip fracture patients [15, 16]. One Norwegian study investigated registered

nurses' perspectives regarding the implementation of the Nurse Practitioner role in emergency departments and what tasks would be relevant for Nurse Practitioners to take on. The results indicated that Nurse Practitioners could take on tasks that were normally performed by interns and physicians, such as advanced health assessments, and contribute to non-urgent patient care in the emergency department [17]. Furthermore, a comparison of the insertion of difficult intravenous access using ultrasound in emergency departments by nurses and physicians found a significant improvement in time to intravenous access [18]. A qualitative study investigating registered nurse-led bone marrow examination in acute care hospitals in Norway found that task shifting involves more than the development of new technical skills. It requires changing how care is organized and building a team-oriented culture to motivate registered nurses to take on non-traditional responsibilities [19]. The expansion of registered nurses' roles in emergency departments is not always supported by physicians, underlining that task shifting challenges professional boundaries. However, clear professional boundaries are essential to maintain patient safety [20]. The importance of person-centred factors for patient safety has been demonstrated. In acute care settings, there are examples of person-centred work in relation to improving the quality of pain assessment and continuity of care [21, 22].

Knowledge about physicians' perspectives on shifting tasks to registered nurses with additional master's level education or to registered nurses within the emergency department is limited. Moreover, a deeper understanding of physicians' and their leaders' viewpoints regarding new ways of working and transferring tasks that are traditionally linked to the physician's role is essential for implementing change [23]. Therefore, this study aimed to explore physicians' and their leaders' perspectives on task shifting to registered nurses in Norwegian emergency departments.

Person-centred practice (framework)

The framework of Person-Centred Practice (PCP) was developed by McCance & McCormack (2023). The authors argue that a person-centred culture can be viewed as the outcome of PCP underpinned by shared values, person-centred language, and behaviour. The PCP framework highlights both macro and micro levels in the framework, thus both system and persons, emphasizing the five pillars of the framework: 1) working with the person's beliefs and values, 2) engaging authentically, 3) sharing decision making, 4) being sympathetically present, and 5) working holistically [24]. To promote and aim for a person-centred culture, it is important to explore values and beliefs of the persons working and practicing within

the culture. The practice environment within this framework also encompasses elements such as power sharing, appropriate skill mix, shared decision-making systems and supportive organisational systems [22]. Knowledge regarding this topic linked to task shifting is scarce. Access to healthcare professional and economic factors are the driving forces to look at new ways to utilise different areas of competencies, for example among nurses and physicians and the organisation of healthcare services. Thereby, bringing forward the concept of task shifting and raising the question of how to achieve the most sustainable utilisation and organisation of healthcare professionals' competence for effective healthcare services.

Methods

Study design

This is a qualitative study using an exploratory, descriptive and inductive approach. This approach is suitable for the exploratory phase of research, when exploring task shifting. The descriptive design is suitable for gaining an in-depth and detailed view of the task shifting as a phenomenon and the inductive reasoning underlines the openness in the interviews, then moving further to broader generalisation of phenomena of interest; task shifting [25, 26]. The Consolidated Criteria for Reporting Qualitative research (COREQ) checklist [27] was applied in the study (Supplementary file 1).

Setting

The setting for this study was three regional hospitals in South-Eastern Norway offering acute healthcare services to a population of approximately 900,000 people. In Norway, an emergency department is an in-hospital facility that is staffed 24 h a day, 7 days a week and provides unscheduled outpatient services to patients whose condition requires immediate care. In Norway, emergency departments provide universal access to emergency care regardless of the patients' financial situation. There is always availability of highly specialised healthcare personnel, as well as modern medical equipment and technology supporting the diagnosis and treatment of acute conditions.

Participants / sampling

A purposeful snowball sampling strategy was used to recruit the participants in this study; this recruitment strategy is appropriate when participants are selected based on their characteristics, knowledge, experiences or other specific criteria [25]. The principles of snowball recruitment process were applied to purposively identify persons with first hand knowledge or experience from task shifting in the emergency department

at different hospital trusts. Ten participants were therefore recruited during the data collection period.

Data collection

Individual semi-structured interviews were conducted at three different emergency department from June until October 2022. The first author, conducted all ten interviews using an interview guide developed for this study (Supplementary file 2). The development of the interview guide was based on two previous studies aiming to: 1) investigate development of a training program for nurse-led ultrasound guided femoral nerve block [28], and 2) test the nurse-led procedures up to the standard of care [29]. The experience from these two studies showed that despite the registered nurses learned and managed well the ultrasound guided femoral nerve blocks, the implementation of nurse-led ultrasound guided femoral nerve block did not occur.

The interview guide explored three main topics: 1) the participants' overall views regarding task shifting as a means of action in healthcare services; 2) the advantages and disadvantages of transferring tasks traditionally linked to the physician's role to registered nurses; and 3) important factors to take into consideration regarding possible implementations of shifting tasks from physicians to registered nurses in emergency departments. The interview guide was piloted with the first participant in this study and since the data provided considerable insight and knowledge related to the aim of the study, the interview was included in the overall data material, and no revisions were needed regarding the interview guide.

Each interview started with an open-ended question: *Can you please tell me about your overall views regarding task shifting as a means of action in the healthcare services?* The participants were encouraged to speak as freely as possible and asked follow-up questions such as: *You just mentioned ... could you please explain more?* Individual viewpoints and experiences were verified against other participants' responses to obtain a rich picture of the experiences [25]. At the end of the interview, a short summary was provided and a final question was asked to give the participant an opportunity to present additional information. The interviews took place in a private, quiet workplace setting in line with the participants' preferences. The interviews lasted between 30 and 74 min (mean 37 min) and were audio recorded with the permission of the participants. When ten interviews were conducted, a consensus decision was made by the first and last author that data saturation seemed to be reached, as no new perspectives on the main themes in the interview guide were presented in the interviews.

Table 1 Example of coding

Meaning-bearing unit	Condensed meaning units	Codes	Subcategory	Category	Theme
Delegate tasks to someone who can complete them more promptly	Tasks that should be completed sooner	Promote efficiency	Find the low-hanging fruit	Rationale for task shifting	It is not the task, it is the shifting –moving towards a person-centred culture
Treatment of pain conditions is suitable task for transferring to registered nurses	Treatment of pain conditions is suitable for task shifting	Suitable task	Find the low-hanging fruit	Rationale for task shifting	
The wound clinic should have been run by registered nurses, they have better competence than the physicians	Registered nurses should run the wound clinic	Suitable task	Find the low-hanging fruit	Rationale for task shifting	

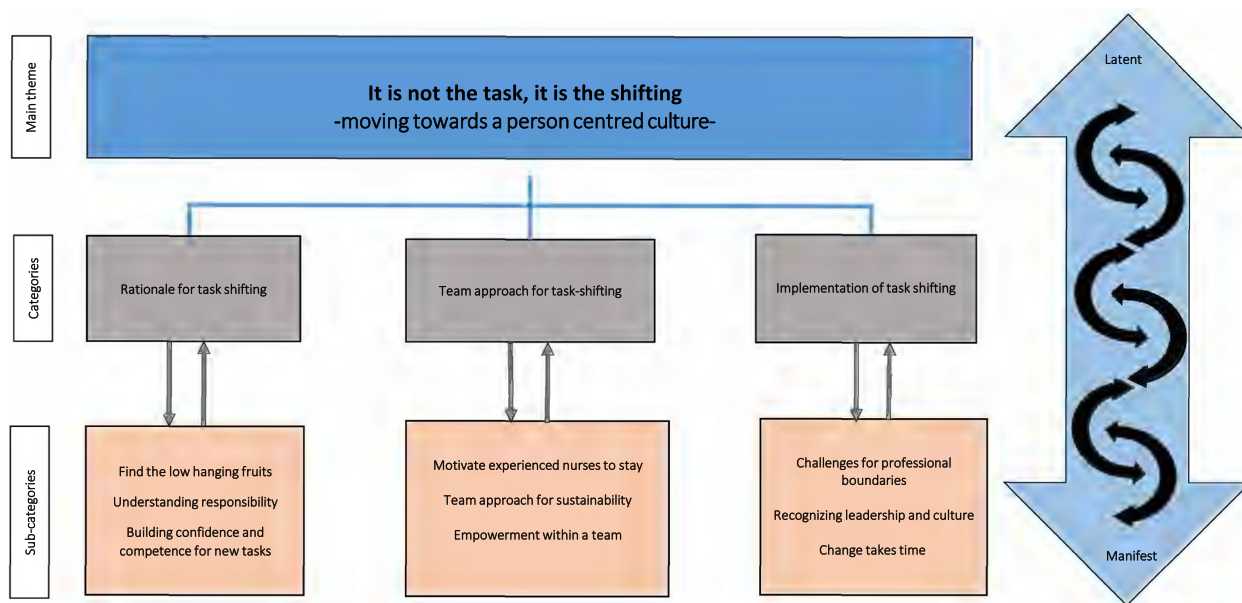


Fig. 1 Themes, categories, and subcategories to explain participants perspectives of task shifting in emergency departments

Data analysis

The interviews were analysed using manifest and latent content analysis, following the approach described by Graneheim and Lundman [30]. Initially, the interviews were conducted, recorded and transcribed verbatim by the first author (ES). Thereafter, all authors familiarized themselves with the transcriptions to gain a comprehensive understanding of the participants’ experiences.

Subsequently, the data were divided into meaningful units, which were condensed and coded. These codes were collaboratively discussed and labelled by the first and last authors (ES and KS) and were subsequently compared and grouped into subcategories and, later, categories. Consistent with Graneheim and Lundman [30], the initial phase of the analysis focused on the manifest content, encompassing explicit or surface-level descriptions present in the data. This phase involved a back-and-forth process with a constant critical perspective when identifying and categorising descriptions evident within the texts, as illustrated in Table 1. In the subsequent phase, we turned our attention towards comprehending the deeper, underlying meaning conveyed by the data. This entailed reflecting on the identified categories and subcategories to uncover broader themes and implicit messages inherent in the texts. This process was supported by asking, ‘What are the texts really communicating?’

The first steps of the data analysis also involved the exploration of the manifest content in a back-and-forth process with a constant critical perspective during the analysis, as illustrated in Fig. 1. Finally, in the latent

part of the analysis, we reflected on the categories and codes and asked ourselves what the texts were talking about, and an overall theme emerged that identified the underlying meaning of the data from a global view of the coded categories [30].

To enhance credibility during the process of analysing the data, the first and last authors analysed the data separately, but with ongoing discussion about the emerging subcategories and the categories. The data analysis involved therefore the process of moving back and forth between different phases of the content analysis. When interpretations between the two authors differed, the researchers explored the possible sources of the difference and returned to the text to reach consensus about the interpretation of the data. To aim for reliability in the interpretation, the preliminary findings were presented for the whole research team and one external expert and critically discussed in a one-day workshop. This discussion of the preliminary finding led to adjustments of and changes to subcategories and renaming of categories, and the overall theme.

Results

Characteristics of the sample

To secure the participants identity, exact information regarding gender, age and work experience is not given in more details than listed in this section. All ten participants were native Norwegians and had an education at the master’s degree level or higher. The sample included four females and six males (n = 10), aged from

40 to 65 years, and work experience in present position ranged from 3 to 21 years.

Presentation of the results

The content analysis revealed three main categories: 1) rationale for task shifting, 2) team approach for task-shifting and implementation of task shifting, 3) resulting in the overall theme: It is not the task, it is the shifting – moving towards a person-centred culture. Figure 1 illustrates the theme, categories, and subcategories. In the following text, the categories and subcategories are presented leading up to a summary of the results, outlining the overall theme of the data analysis.

Category 1: Rationale for task shifting

This category represents the rationale for tasks shifting from a physician to a registered nurse. Three subcategories constitute this category: finding the low-hanging fruit, understanding the responsibility and building competence and confidence in new tasks.

Finding the low-hanging fruit

Different perspectives among the participants regarding what qualifies as a suitable task for task shifting were identified. It seemed important to most of the participants that the task meant for task shifting had to be the “right task” to “give away”. One participant explained, “So, if those who perform and are going to perform the current procedure are more readily available, they do it more frequently and gain volume in training. That should be the principle one must adhere to.” (Participant 1).

In the interviews identified several tasks suitable for task shifting, also referred to as “low hanging fruits”, such as managing pain conditions, wound care, and simple fractures, which were considered accessible and feasible. Participants had varying views on how to determine suitable tasks, with some advocating for pre-assessed tasks by physicians and others supporting tasks fully managed by registered nurses. Overall, the main objective of task shifting was to enhance patient care quality. This is highlighted by one of the participants: “But it is probably a hard pill to swallow, I believe, because there are several tasks that you actually don’t want to transfer, but it benefits the patients, and to ensure that they receive better treatment, and that should decide” (Participant 8).

The participants emphasized two key criteria for task shifting. Firstly, the tasks should enhance care efficiency, and secondly, they should be practiced frequently to maintain quality standards. They highlighted the need for specific education levels for certain tasks, citing

ultrasound procedures as complex and better suited for physicians. Some suggested increasing physician numbers instead of shifting tasks to registered nurses.

The participants expressed that from their perspective, patients do not care whether a task is executed by a registered nurse or a physician. The quality of care, and being met with person-centred values, was mentioned by several participants as the most important factor for patients. One participant said that patients often do not care if they are treated by a registered nurse or a physician: “They [the patients] just want to receive pain relief and care, to be looked after and communicated with. It is even more important to talk to them.” (Participant 7).

Several participants speculated that offering registered nurse-led ultrasound-guided femoral nerve blocks would lead to a reduction in the waiting time for pain relief and contribute to comprehensive follow-up of patients.

Understanding responsibility

From the perspectives of the physicians, it was important that the registered nurses were capable of taking responsibility for a given task. Some of the participants had experienced that tasks were assigned to health care personnel lacking the necessary competence, possibly leading to ineffective task shifting with adverse consequences for the quality of care. One participant gave the following example: “Ambulance workers with a vocational background, despite being well-trained, very faithful to their procedures, and doing what they are supposed to do, they don’t fully see the consequences of their actions “ (Participant 8).

As a consequence of task shifting, the participants expected registered nurses to take full ownership, inclusive responsibility, not just to perform a certain procedure but also to provide full patient care and to do so independently. Some had experienced “registered nurses’ unwillingness to take on the responsibility” for tasks. One physician said: “It may be related to education or individual choices regarding assuming responsibility, registered nurses have more aversion to responsibility than physicians” (Participant 2).

The capability to take responsibility was linked to personality type, including qualities such as willingness to challenge professional boundaries and expand the nursing profession further. However, several participants had experienced that registered nurses with continuing professional education, such as those specializing in anaesthesia or intensive care wanted more “physician tasks” and to manage more responsibility, compared to registered nurses in general. Despite this, registered nurses would quickly hand over the responsibility for the task to the physician if the situation became too challenging. This is illustrated in the following quotation: “When the

shit hits the fan, the registered nurses let everything go, they are not responsible. I have heard and observed this so many times. They [registered nurses] say: "You are a physician you have to take responsibility" (Participant 7).

According to the participants, the healthcare system itself can be a barrier to task shifting since physicians are lawfully responsible for all aspects of a patient's medical treatment. This means that laws, local regulations and traditions function as barriers for registered nurses taking full responsibility for tasks traditionally performed by physicians despite their being both capable and competent. One participant said: *"...the system makes it difficult because the system doesn't trust registered nurses. You should trust that everyone in the healthcare system takes into account what you have expertise in and acts accordingly"* (Participant 3).

Some participants expressed a lack of confidence in registered nurses' ability to stay updated. The example was given of registered nurses learning how to perform ultrasound-guided femoral nerve blocks in hip fracture patients, some participants doubted registered nurses' ability to take responsibility for implementing new and updated nerve block techniques.

Many of the participants pointed out that although some registered nurses are capable of taking on complicated tasks and taking responsibility for the treatment, the system itself was a great barrier to this change.

Building competence and confidence in new tasks

To facilitate the development of registered nurses' competence and confidence to perform new tasks, the participants highlighted the importance of developing high-quality training programmes driven by the physicians themselves. The development of specific training programmes for registered nurses could ensure safe and high-quality performance of tasks and could include directives to follow in case of adverse events. Therefore, it was important to the physicians to be in charge of the content of the training programmes, *"I need to know that the training is of high quality; [training] must come from us"* (Participant 7). Another positive aspect of tailoring a specific training programme for registered nurses could be the prevention of fragmentation of patient care by highlighting the holistic approach of the task shifting.

Some of the participants emphasised one challenge of training by physicians, namely that not all physicians are qualified to teach and supervise. In reference to registered nurses providing femoral nerve blocks to hip fracture patients as an example of a task that had been transferred, one participant explained: *"...when a physician learns a new procedure, the see one, do one, teach one approach still applies. They have not had a one-day*

training programme like the registered nurses here have" (Participant 2).

Some of the participants highlighted the negative consequences of task shifting. These include lacking the competence to perform complicated procedures and losing both dexterity and personnel resources. One of the participants gave an example: Physicians are mandated to complete a specific number of procedures during their education programme. However, it might be difficult to meet this requirement if registered nurses were to take over these procedures. One of the participants suggested how the training programme could contribute to building both confidence and competence among a few registered nurses, who, in turn, could function as supervisors for new physicians. This would be a win-win situation for both the physicians and the registered nurses.

Collectively this category has presented the participants perspectives on the rationale for tasks shifting from a physician to a registered nurse, which brings the attention to the next category regarding the importance of enhance team approach for task shifting.

Category 2: Team approach to task shifting

This category signifies the findings on how the participants experiences with task shifting often being linked to motivation for experienced registered nurses to stay, team approach to sustainability, and empowerment within a team.

Motivate experienced registered nurses to stay

Most of the participants described task shifting as a way to increase the recognition of registered nurses' competence, and at the same time an important measure to increase work satisfaction among the most experienced registered nurses. As one participant explained: *"The registered nurses in the emergency department quit when they are at their best, it makes no sense. Trust, responsibility, exciting tasks, you have to look for such factors to keep them"* (Participant 4).

Most of the participants said that their emergency departments relied on the most experienced registered nurses and if the best registered nurses were to quit to pursue more challenging tasks, this could reduce the physicians' and healthcare services' ability to provide a high quality of care. Some of the participants expressed a positive attitude towards task shifting as an important strategy for developing future nursing roles and for motivating registered nurses to stay in their current workplace.

Team approach to sustainability

Collaboration in teams (physicians and registered nurses) was frequently suggested as an important factor for

successful task shifting. This made it possible to ensure high-quality training to support for the registered nurses, and to avoid fragmentation of care. When asked to elaborate, one of the managers pointed out the following: *“We should implement a team organisation as a safety mechanism, then task shifting will not be so ‘dangerous’ after all. Team organisation around task shifting provides a safer framework for everyone and can help to reduce resistance to task shifting”* (Participant 1).

Other participants expressed their worries about losing track of responsibility because they had experienced that important information could get lost when the responsibility for caring for patients was divided among multiple carers. The participants further elaborated on different solutions regarding the organisation of teams, such as working together to develop high-quality training programmes, implementing new and updated procedures, encouraging reflection on complex cases and ensuring that practitioners have information that embraces the totality of the situation.

The participants claimed a team approach could mitigate the risks associated with task shifting. Because the team allows the team members to develop their skills over time, understanding the risks, contraindications. One concrete example that was highlighted by the participants was the development of autonomy among team members, enabling them to make independent decisions regarding the timing of procedure execution and the need for assistance. This approach serves to diversify the decision-making process, reducing reliance on external directives and fostering autonomous choices that prioritize the patient’s well-being. Consequently, the collaborative environment created by the team structure empowers individuals to leverage the collective expertise and support within the team, thereby improving patient safety and enhancing the quality of care provided.

Empowerment within a team

Some of the participants had experienced that a team approach helped registered nurses gradually take more responsibility and use the team for support in case of adverse events. Simultaneously, some participants pointed to concerns that physicians may not always be a suitable choice to educate and supervise registered nurses in certain procedures due to a lack of competence or experience in different procedures. Some participants said they would rather have a procedure performed by an experienced registered nurse than an inexperienced physician.

Further, the participants reported communication and relational gaps between healthcare workers in different departments who do not necessarily know each other or understand each other’s work-related challenges and

therefore do not trust each other. Participants said that responsibility and trust could not be taken for granted, but were developed through the formal rules of the system and by getting to know one’s colleagues over time.

The link between empowerment and trust in the context of task shifting appeared to be important. It is considered easier from the perspectives of the physicians and leaders in this study to empower the registered nurses the authority, autonomy, and confidence to make decisions and take actions independently within their scope of practice when it is within an interprofessional team and the team is given time to know each other to build trust. As one of the participant expressed: *“Team organisation can increase trust, as you know what they [the team members] stand for, what they can do”* (Participant 9).

The content of Category 2 reflects the participants viewpoint on the importance of a team approach for task shifting, drawing attention to Category 3 focussing on the implementation of task shifting.

Category 3: Implementation of task shifting

The participants described the challenges of implementing task shifting between physicians and registered nurses in emergency departments and possible solutions. Their responses can be divided into three subcategories: first, they shared their perspectives on the change in roles of the professions involved; second, they emphasized the importance of recognizing leadership and rules; and finally they acknowledge that change takes time.

Challenges for professional boundaries

The participants found it challenging to let other professionals, including registered nurses but also physicians outside their own medical specialty, take over tasks they traditionally performed. This was especially challenging in the case of high-status tasks, also referred to as “sexy tasks” (Participant 7).

The participants raised some concerns regarding the recruitment of physicians if practical procedures were to be transferred to registered nurses. Nevertheless, they recognized the relevance of context; for instance, some participants were well aware that registered nurses often perform traditional physician tasks in rural hospitals that face understaffing. One participant said: *“...registered nurses perform [certain tasks]...in other hospitals..., which I am not against, but we have basically settled on a different strategy in our department”* (Participant 10).

The participants frequently mentioned the fear of losing status when registered nurses took over their tasks. However, the participants claimed they did not speak for themselves but on behalf of their colleagues. Several of them mentioned that losing or giving up tasks that were experienced as a typical “physician thing” might make the

job more boring and that practical procedures are perceived as an advantage of the medical profession.

Many of the participants also claimed that it was easier for a registered nurse to take over a task from a physician, but for a physician to hand off a task to registered nurses was perceived as a defeat. When registered nurses are handed a task from a physician it is considered an achievement for the nurse but was seen as degrading for the physician. One manager explained: *“...task shifting sideways is not so popular, and shifting downwards even less so”* (Participant 1).

The participants encountered some hierarchy challenges related to task shifting, not exclusively in terms of physician-nurse conflicts but also conflict among registered nurses. Some tasks are perceived to be beneath registered nurses, especially among registered nurses with comprehensive education. Several of the participants had experienced that having Intensive Care Unit nurses and registered nurse anaesthetists help out in other hospital wards during the Covid-19 pandemic led to conflicts because the registered nurses claimed this work was utilizing their expertise in the wrong way. Moreover, according to the participants, it challenges the position these nurses feel they have in the system and their loss of identity, and raises issues concerning prestige in all professional groups, not just among physicians.

One participant said: *“Everyone wants the cool tasks. Some feel like they’ are being deprived of tasks that they find cool, or good, or fun, right? Tasks that give them status, I think we’re all a bit concerned about that”* (Participant 8).

Recognising leadership and culture

The participants highlighted the importance of leadership and management for the successful execution of task shifting. They recognized informal leaders as both obstacles and enablers. This is because administrative leaders are not always physicians and hence may not necessarily uphold the prevailing culture: *“...the administrative and clinical levels differ in [terms of] power. Sometimes the administrative one is the strongest and other times the clinical one is the strongest. If you are going to implement something and there is friction and potential conflict, it is almost impossible to change anything”* (Participant 4). Some of the participants claimed that physicians make some tasks, such as the ultrasound-guided femoral nerve block, more complicated than they really are, to preserve their status.

Formal and informal structures determine who has the authority and duty for various tasks. Physicians hold decision-making authority, which often leads them to perform tasks that may seem meaningless, such as completing requisition forms. Formalities hinder registered

nurses from taking on more authority. The authorisation system does not always clearly define who is allowed to perform which tasks. This lack of clarity prevents the smooth transition of tasks from physicians to registered nurses. For instance, a physician must sign an X-ray requisition without knowing the patient’s identity or the body part to be examined.

This was illustrated by one of the senior physicians: *“... then the registered nurses came running to have my signature on an x-ray requisition... I could have signed with Winnie the Pooh; I did not even know if the requisition was for the correct leg”* (Participant 3).

Change takes time

All the participants expressed their concerns regarding the time needed to implement task shifting. Time was highlighted in particular because it takes time to learn new skills and ensure sufficient preparation, and time was therefore experienced as both a risk and a success factor. Furthermore, it takes time for registered nurses to be able to perform complex tasks independently. Some participants mentioned procedures involving the use of ultrasound skills as being particularly time consuming: *“Then you train a group to use ultrasound. The practicality of it is challenging and must take time to master. It is fundamental. What is ultrasound, and what do we use it for and how does it work?”* (Participant 8).

The importance of taking one step at a time was described as a success factor for implementing registered nurse-led tasks. All the participants noted that the health services sector does not have a culture that facilitates change because efficiency trumps quality when it comes to patient care and staff training. However, if systems, rules and e-learning programmes are available, the time needed to provide bedside supervision during training is almost nothing.

Most participants highlighted the importance of establishing a strategy to implement new ways of working and that opposing forces and decision-makers must be identified early in change processes, and the importance of taking the time to identify who actually makes decisions.

The participants described the challenges of implementing task shifting between physicians and registered nurses in emergency departments, highlighting issues such as changes in professional roles, the importance of leadership, and the time needed for successful implementation. They noted concerns about maintaining professional boundaries, potential conflicts related to status and identity, and the critical role of clear authority and decision-making structures.

In the previous three categories task shifting presents opportunities to enhance efficiency and patient care in emergency departments. However, its successful

implementation hinges on overcoming cultural, leadership, and training challenges through a holistic and collaborative approach. Moving on to the overall theme, we focus more about the culture than the specific task.

The overall theme

The manifest findings from category 1–3 were reflected upon, raising the question: What are these findings telling us? This led to the following theme: It is not the task, it is the shifting – moving towards a person-centred culture. This theme describes the underlying (latent) structure in our findings. The results indicate a moderate level of interaction, particularly in the areas of the importance of building confidence and competence for new tasks, and how new tasks and responsibilities are best delivered through a team approach. Furthermore, a team approach and the importance of empowering the team members is highlighted. This empowerment process is not just the responsibility of the team members; the participants frequently pinpointed the importance of leaders and the organisation to acknowledge the time it takes to implement changes. The culture of the emergency department does not acknowledge the time required to gain trust, responsibility, competence and confidence within a team. The participants themselves did not see the transfer of certain tasks as an issue. However, they found cultural and organisational change, as well as the time it takes to function cohesively as a team, challenging.

Discussion

The aim of this study was to explore the perspectives of hospital leaders and physicians regarding task shifting in emergency departments. The most prominent finding in this study is that shifting tasks in an emergency department can encourage a more person-centred workplace culture.

Establish a team

The study findings suggest that an important starting point for implementing task shifting should be to identify appropriate tasks to transfer. This is in line with the EU report highlighting the importance of avoiding inappropriate task shifting, which can lead to increased workloads and fragmentation of care [4]. Furthermore, the process of task shifting includes more than focusing on “just the task”; it also involves clarifying *why* a task is being transferred [8]. As an example, existing tools for stakeholders planning and implementing task shifting appear to take a more holistic approach, taking all the different aspects of task shifting into consideration [8].

This study identifies different aspects of task shifting processes: a) The instrumental aspect involves tasks like performing a femoral nerve block, b) Professional

competence is foundational for understanding task complexity, and c) Personal capability, such as bravery and resilience, is essential for taking on tasks. Mastering a task involves understanding its complexity and taking responsibility. It also hinges on an individual's professional competency, which is tied to their capability – their ability to perform effectively [31]. Capability goes beyond competency in that it requires a relational understanding of context and critical analysis of the situation to allow for the flexible application of knowledge and deciding who is the right person for the task [31]. Therefore, a more holistic understanding of task shifting includes the development of professional competency among registered nurses, also referred to as professional empowerment [32].

Studies indicate that authentic leadership and structural empowerment significantly influence experienced registered nurses' perceptions of interprofessional collaboration, and several studies have identified that managing responsibility is a major barrier to task shifting among registered nurses [4, 13, 19, 32]. It is therefore paramount for leaders across healthcare settings to understand what encourages registered nurses to take over a task and what challenges and facilitating factors they encounter when doing so [31]. This understanding helps leaders to develop organisational commitment among healthcare professionals [31].

The development of organisational commitment involves developing a person-centred culture highlighting concepts such as success and personal and professional growth [24]. The main obstacles for leaders when trying to cultivate a person-centred culture in acute care environments stem from the various cultural aspects within the organisation [22]. These include the organisational culture, the culture of learning and the culture of care [33]. Emergency departments are known for the high amount of stress and unpredictable working days [34].

The study findings highlight the value and importance of working and learning as a team in the process of shifting tasks. This is in line with findings from an Indonesian study investigating stakeholders' perspectives on task shifting in mental health care, which underlined the value of sharing and collaboration [35]. Creating an environment and culture that enables teamwork, creativity, adaptability and innovation is a powerful strategy in when it comes to building teams and person-centred cultures [34], referred to as shared decision-making systems [36]. Implementing shared decision-making teams consisting of registered nurses and physicians can contribute to more sustainable task shifting processes. Shared decision-making teams can support the instrumental, personal, and professional aspects of task shifting, thereby

establishing a more person-centred culture in the context of care.

The PCP framework emphasises the value and importance of working and learning as a team in the process of shifting tasks. This approach encourages collective leadership with the main goal of providing high-quality care in emergency departments.

Empowering the team members

The participants in the study shared their concerns about task shifting leading to fragmentation in patient care when the responsibility for tasks was divided among multiple health care professionals. At worst, this could lead to adverse patient outcomes, such as extended hospital stay, increased risk of readmission to hospital, and increased mortality [37]. A Swedish study found that the provision of care in the emergency department exhibits fragmentation, with nursing care often viewed as an extension of medical practice and registered nurses sometimes undervaluing their unique nursing role [38]. While medical goals remain clearly delineated, nursing goals lack distinct boundaries [39]. The establishment of strong interdisciplinary teams with clear role boundaries tailored to specific care contexts can help prevent fragmentation of care [4, 39].

Closely connected to perspectives on the fragmentation of care is the aspect of managing the responsibility for the task shifting. One of the findings in the study was perspectives on whether registered nurses had the confidence to manage the responsibility that came with task shifting. Furthermore, the participants expressed taking responsibility was more closely linked to the physician role as a matter of tradition and through medical education. The perspective of crossing the line between medicine and nursing in relation to task shifting has been addressed in previous studies [40], which have suggested focussing on teambuilding rather than on transferring specific tasks [41]. One recent study highlighted teamwork as one of the most important factors for quality of care, noting that a lack of teamwork can contribute to burnout among physicians and adverse events [42]. This supports the importance of building a resilient team when implementing task shifting both to prevent fragmentation of patient care and to help registered nurses manage the responsibility of providing treatment. In this way, organisations facilitate a team approach to build trust and psychological safety, which allow registered nurses to practice responsibility with support from physicians [4]. The findings in this study suggested an understanding of “task sharing” within the team approach that did not necessarily entail shifting responsibility for a task entirely but rather sharing the task within the team.

Leaders should facilitate team relationships, considering in particular the need to build competence over time and bolster registered nurses’ ability to take full responsibility for tasks traditionally performed by physicians [43].

By highlighting the task sharing approach within interdisciplinary teams, conflicts can be avoided and physicians’ professional identity can be preserved. Professional identity is achieved in stages over time, during which the characteristics, values and norms of the medical profession are internalized, resulting in an individual thinking, acting and feeling like a doctor [44]. Shifting a task from one profession to another will most likely transform the status of both the person taking over the task and the one giving it away [40].

The PCP framework emphasizes power sharing and having an appropriate skill mix. It also promotes shared decision-making systems and a team approach to task sharing. This framework encourages collective leadership with the goal of providing high-quality care in emergency departments. These aspects might be more important than specific tasks, such as who injects nerve blocks or signs x-ray requisitions, this might also be more significant than who initiates the next step of treatment. Registered nurses working in interprofessional teams have reported greater well-being and less risk of burnout [9, 34], which is the one of the most urgent issues facing healthcare today [45, 46].

Understanding the complexity of expanding professional boundaries

It is most common to transfer traditional physician tasks to registered nurses, primarily because the latter form the largest group of healthcare professionals. Their extensive capabilities and widespread availability across nearly every healthcare facility make them essential contributors to the delivery of quality care [47]. Our study highlights that the tension that exists in task shifting is not a result of the specific task so much as the shifting process. Therefore, it is necessary to identify what benefits patients in terms of quality of care and which healthcare professionals are capable of learning and taking responsibility for new tasks. However, taking over tasks that physicians perceive as high-status might lead to a change in status for registered nurses. The alteration in status due to task redistribution is not solely a concern for the relationship between physicians and registered nurses, but also for relationships among registered nurses themselves. A qualitative Norwegian study reported instances of envy and fears of change in status [19]. The study underscores the significance of managing negative emotions in the workplace and building a team-centric culture [19]. Challenges resulting from factors related to hierarchy are shaped by context and cultural factors [48],

which also shape patient safety culture, and will differ from one country to another, and even from one hospital to another in the same country. This highlights complexities in the workplace, and the culture that call for different ways of implementing task shifting, as well as an assessment of the organisational system [4, 19]. The PCP framework supports empowering all healthcare professionals, regardless of their hierarchical position to contribute to patient safety and care. It is therefore imperative that leaders understand both the workplace culture and the driving factors within their organisation if they are to work against many of the deeply engrained structural and social norms that prevail [49].

Registered nurses' workload must be acknowledged in any discussion of task shifting [50]. It is important to reconsider the need for transferring traditional physician tasks to registered nurses if this leads more work overload. Shifting tasks from registered nurses to other health care workers, such as registered nurse assistants or health secretaries, must also be considered. As a result, team building in relation to task shifting can involve physicians, registered nurses and registered nurse assistants. The findings in the study highlights the importance that leaders acknowledge leaders to acknowledge the complexities of task shifting and allow sufficient time to adjust when changing professional boundaries. The absence of time was perceived as a barrier created by hospital leaders and politicians due to years of focus on efficiency and cost savings rather than on quality of care. Previous studies have reported lack of organisational support as a barrier for task shifting [40, 51, 52]. By focusing on establishing and empowering interdisciplinary teams, leaders can support the emergence of a more person-centred care culture in emergency departments.

Strengths and limitations

A key strength of our study is that we believe it to be the first to explore task shifting from the perspective of hospital physicians and leaders in the emergency department setting in high-income countries. A limitation of the study is the choice to explore only the perspectives of physicians and leaders. The perspectives of other healthcare professionals such as registered nurses, while equally important, are not within the scope of this study.

Several measures have been taken to ensure trustworthiness and transparency, such as member checking [53]. First, the first and last authors cooperated closely throughout the analysis process and held a workshop with experts and co-researchers with the goal of avoiding bias [54]. Second, the research team members have different perspectives due to their various professional competences and research backgrounds. This mix of competencies and perspectives helped the team avoid

unidimensional interpretation of findings, thereby improving trustworthiness.

Another strength is the inclusion of thick descriptions in the form of verbatim quotations in the manuscript. These descriptions contribute to the transparency and credibility of the interpretation of latent content by helping to uncover the researcher's thinking during data analysis and how that thinking influences the creation and application of codes [55].

Having a registered nurse and physician who had worked in hospitals for several years on the research team was important to critically discuss the findings. It was, however, a possible limitation that their pre-understandings might have influenced their interpretation of task shifting between physicians and registered nurse [56]. However, two additional members of our research team (despite their limited familiarity with task shifting and lack of experience in emergency departments) brought extensive expertise from analogous environments, as well as in data analysis, coding and critical thinking. Their ability to analyse critically from a fresh perspective enhances the credibility of our analysis, and strengthens the trustworthiness of our results.

Finally, the first author is a registered nurse and some of the participants were fellow workers, previous leaders and colleagues. This could be considered a strength as it presented a unique opportunity to have easy access to informants and it meant that trust was already established. However, the researcher had to be careful and reflect on the impact of their preconceptions on the validity of the findings because of their previous knowledge of the participants. Furthermore, because the participants were physicians and leaders, power relations had the potential to be challenging due to the fact that the registered nurse–physician relationship is known to be influenced by the power of authority, social status, gender and other factors [57]. The first author therefore discussed their feelings and immediate experiences from the interviews with the co-authors to avoid interpretations based on the first author's relationship with the participants.

Conclusions

Developing and promoting person-centred culture and fostering a team approach in emergency department settings appears to be more important than simply shifting tasks. Task shifting can lead to fragmented responsibility, which may result in fragmented care. A fragmentation of care is likely to be the primary reason for physicians' resistance to registered nurses taking over their tasks. The PCP framework emphasizes the importance of creating a supportive and collaborative environment, ensuring that task shifting does not compromise the quality of care provided.

In practice, a team approach for task shifting may support those involved in the process of redesigning their professional roles, both in terms of giving away and of taking responsibility for tasks. Such processes take time, and hospital management must be willing to put an effort into organizing teams. Healthcare workers need clear leadership in the task shifting process that both recognises the time this process can take and also engages in the task shifting process, because traditions and culture can often stand in the way of development. Further research in joint planning to facilitate a team approach that can lead to more a person-centred culture in emergency departments should be undertaken. In addition, context-related studies involving the development of guidelines, team training programmes and methods that promote cooperation between professionals need to be addressed.

The significance of the finding of this study highlights following recommendations: a) leaders in Emergency Department should focus on developing a person-centred culture and fostering a team approach, b) hospital leaders should invest time and effort, by acknowledging the cultural and traditional challenges in task shifting, and c) to support person-centred culture and effective task shifting in Emergency Departments more focus is needed on the development of guidelines, team training programs and collaboration strategies.

Summary of recommendations for healthcare leaders and policymakers

- Emergency Department leaders should focus on developing a person-centred culture and fostering a team approach
- Hospital leaders must invest time and effort, acknowledging the cultural and traditional challenges in task shifting
- Policy makers should promote further research and development of guidelines, team training programs, and cooperation methods to support a person-centred culture and effective task shifting in emergency departments

Abbreviation

PCP Person-Centred Practice

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12912-024-02246-8>.

Supplementary Material 1.
Supplementary Material 2.

Acknowledgements

We wish to thank the physicians and leaders who participated in the study.

Authors' contributions

All authors have agreed on the final version and meet at least one of the following criteria: (a) substantial contributions to conception and design, acquisition of data or analysis and interpretation of data, or (b) drafting the article or revising it critically for important intellectual content. Roles are defined as follows: ES: Conceptualization, methodology, analysis, investigation, writing the original draft, editing and visualization. Analysis, writing the original draft, supervision and visualization. H.O.E: Analysis, writing the original draft, supervision and visualization. KS: Conceptualization, methodology, analysis, writing the original draft, supervision and visualization. EL: Conceptualization, methodology, analysis, writing and editing. P.C. B-J: Conceptualization, methodology, analysis, writing and editing. KS: Conceptualization, methodology, analysis, writing the original draft, supervision and visualization.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Availability of data and materials

The datasets generated and/or analysed during the current study are not publicly available due to the protection of the anonymity of the participants, also the participants of this study did not give written consent for their data to be shared publicly.

Declarations

Ethics approval and consent to participate

All methods conducted adhered to the relevant guidelines and regulations in accordance with the Declaration of Helsinki. The national regulations and guidelines for ethics approval were followed in this study. The Norwegian Centre for Research Data (ID 2019/533039), and the Hospital Institutional Review Boards (PVO 2019/06011) approved the study. Prior to this, an application was sent to the Regional Committee for Medical and Health Research (2019/343 REK-South-East) which declared that approval for the current project was not required according to the Ethics Norwegian Health Research Act. Before the interviews began, the participants were informed individually that their participation was anonymous and voluntary and that they could withdraw at any stage. The participants received oral and written information about the study. All signed a written Informed consent form agreeing to participate.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Author details

¹Division of Emergency Department, Vestfold Hospital Trust, Halfdan Wilhelmsens Allé 17, Tønsberg 3103, Norway. ²Faculty of Health and Social Sciences, University of South-Eastern Norway, Grønland 58, Drammen 3045, Norway. ³Faculty of Health and Social Sciences, University of South-Eastern Norway, Raveien 215, Borre 3184, Norway. ⁴Department of Anaesthesiology, Vestfold Hospital Trust, Halfdan Wilhelmsens Allé 17, Tønsberg 3103, Norway. ⁵Faculty of Health, Welfare and Organisation, Østfold University College, Halden NO-1757, Norway.

Received: 28 May 2024 Accepted: 8 August 2024

Published: 16 August 2024

References

1. WHO. Health workforce 2030: towards a global strategy on human resources for health. World Health Organisation. 2016. Available from: <https://iris.who.int/bitstream/handle/10665/250368/9789241511131-eng.pdf>. Accessed 18 Jan 2020.

2. Leong SL, Teoh SL, Fun WH, Lee SWH. Task shifting in primary care to tackle healthcare worker shortages: an umbrella review. *Eur J Gen Pract*. 2021;27(1):198–210.
3. United Nations. The sustainable development goals report. New York: United Nations; 2022. p. 68.
4. De Maeseneer J, Bourek A, McKee M, Brouwer W. Task shifting and health system design: report of the expert panel on effective ways of investing in health (EXPH). 2019. Available from: 05bdbaec-6c01-4d60-aa57-a982261a096d_en (europa.eu). Accessed 31 Feb 2020.
5. WHO. Task shifting to tackle health worker shortages. World Health Organisation; 2007. p. 9789. (who.int). https://iris.who.int/bitstream/handle/10665/43821/9789241596312_eng.pdf?sequence=1&isAllowed=y. Accessed 18 Aug 2019.
6. Bolme S, Austeng D, Morken TS, Follestad T, Halsteinli V. Cost consequences of task-shifting intravitreal injections from physicians to nurses in a tertiary hospital in Norway. *BMC Health Serv Res*. 2023;23(1):229. <https://doi.org/10.1186/s12913-023-09186-0>.
7. Maier CB, Koppen J, Busse R, team M. Task shifting between physicians and nurses in acute care hospitals: cross-sectional study in nine countries. *Hum Resour Health*. 2018;16(1):24. <https://doi.org/10.1186/s12960-018-0285-9>.
8. Van Schalkwyk MC, Bourek A, Kringos DS, Siciliani L, Barry MM, De Maeseneer J, et al. The best person (or machine) for the job: rethinking task shifting in healthcare. *Health Policy*. 2020;124(12):1379–86. <https://doi.org/10.1016/j.healthpol.2020.08.008>.
9. Person J, Spiva L, Hart P. The culture of an emergency department: an ethnographic study. *Int Emerg Nurs*. 2013;21(4):222–7. <https://doi.org/10.1016/j.ienj.2012.10.001>.
10. Riegert M, Nandwani M, Thul B, Chiu AC, Mathews SC, Khashab MA, Kalloo AN. Experience of nurse practitioners performing colonoscopy after endoscopy training in more than 1,000 patients. *Endosc Int Open*. 2020;8(10):E1423–8. <https://doi.org/10.1055/a-1221-4546>.
11. Federspiel F, Mukhopadhyay S, Milsom PJ, Scott JW, Riesel JN, Meara JG. Global surgical, obstetric, and anesthetic task shifting: a systematic literature review. *Surgery*. 2018;164(3):553–8. <https://doi.org/10.1016/j.surg.2018.04.024>.
12. Abrokwa SK, Ruby LC, Heuvelings CC, Belard S. Task shifting for point of care ultrasound in primary healthcare in low- and middle-income countries—a systematic review. *EclinicalMedicine*. 2022;45:101333. <https://doi.org/10.1016/j.eclinm.2022.101333>.
13. Bolme S, Austeng D, Gjelo KH. Task shifting of intravitreal injections from physicians to nurses: a qualitative study. *BMC Health Serv Res*. 2021;21(1):1185. <https://doi.org/10.1186/s12913-021-07203-8>.
14. Bolme S, Morken TS, Follestad T, Sorensen TL, Austeng D. Task shifting of intraocular injections from physicians to nurses: a randomized single-masked noninferiority study. *Acta Ophthalmol*. 2020;98(2):139–44. <https://doi.org/10.1111/aos.14184>.
15. Gawthorne J, Stevens J, Faux SG, Leung J, McInnes E, Fasugba O, et al. Can emergency nurses safely and effectively insert fascia iliaca blocks in patients with a fractured neck of femur? A prospective cohort study in an Australian emergency department. *J Clin Nurs*. 2021;30(23–24):3611–22. <https://doi.org/10.1111/jocn.15883>.
16. Srikantharajah I, Srikantharajah ID, Ayodele O, Grigg L, Randall A. Fascia iliaca compartment block for pre-operative pain relief in adult fracture neck of femur: a nurse led initiative in luton and dunstable hospital UK: 14AP1-2. *Eur J Anaesthesiol*. 2007;24:169.
17. Boman E, ÖspEgilsdottir H, Levy-Malmberg R, Fagerström L. Nurses' understanding of a developing nurse practitioner role in the Norwegian emergency care context: a qualitative study. *Nordic J Nurs Res*. 2019;39(1):47–54. <https://doi.org/10.1177/2057158518783166>.
18. Bagan M, Bahl A. Comparison of nurse-performed ultrasound-guided versus standard of care intravenous access in emergency department patients with difficult access. *Ann Emerg Med*. 2015;66:S137–8.
19. Feiring E, Lie AE. Factors perceived to influence implementation of task shifting in highly specialised healthcare: a theory-based qualitative approach. *BMC Health Serv Res*. 2018;18(1):899. <https://doi.org/10.1186/s12913-018-3719-0>.
20. Cameron M, Shaw V. Expanding the emergency nurse role to meet demand: nurse and physician perspectives. *Emerg Nurse*. 2020;28(6):26–33. <https://doi.org/10.7748/en.2020.e2031>.
21. Jakobsson S, Ringström G, Andersson E, Eliasson B, Johannsson G, Simrén M, Jakobsson Ung E. Patient safety before and after implementing person-centred inpatient care—a quasi-experimental study. *J Clin Nurs*. 2020;29(3–4):602–12. <https://doi.org/10.1111/jocn.15120>.
22. McCance T, McCormack B. Developing healthful cultures through the development of person-centred practice. *Int J Orthop Trauma Nurs*. 2023;51:101055. <https://doi.org/10.1016/j.ijotn.2023.101055>.
23. Hoskins R. Interprofessional working or role substitution? A discussion of the emerging roles in emergency care. *J Adv Nurs*. 2012;68(8):1894–903. <https://doi.org/10.1111/j.1365-2648.2011.05867.x>.
24. McCormack B, McCance T, Dewing J. Flourishing as humans. *Fundamentals of Person-Centred Healthcare Practice*. 2020.
25. Creswell JW, Poth CN. *Qualitative inquiry and research design: choosing among five approaches*. Thousand Oaks, CA: Sage publications; 2016.
26. Brinkmann S, Kvale S. *Interviews—learning the craft of qualitative interviews*. 3rd ed. Los Angeles: SAGE Publications, Inc.; 2015.
27. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349–57. <https://doi.org/10.1093/intqhc/mzm042>.
28. Saga E, Skovdahl K, Lindholm E, Sørung Falk R, Bing-Jonsson PC. Development of a workplace-based training program for nurse-led ultrasound-guided femoral nerve blocks: a feasibility study with the patients' perspective in focus. *Nurs Forum*. 2023;8810083(1). <https://doi.org/10.1155/2023/8810083>.
29. Saga E, Falk RS, Bing-Jonsson PC, Skovdahl KI, Lindholm E. Nurse-led ultrasound-guided femoral nerve block: a randomised controlled trial of two different patient flow systems in an emergency department. *Int J Orthop Trauma Nurs*. 2024;52:101074. <https://doi.org/10.1016/j.ijotn.2023.101074>.
30. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004;24(2):105–12. <https://doi.org/10.1016/j.nedt.2003.10.001>.
31. O'Connell J, Gardner G, Coyer F. Beyond competencies: using a capability framework in developing practice standards for advanced practice nursing. *J Adv Nurs*. 2014;70(12):2728–35. <https://doi.org/10.1111/jan.12475>.
32. Regan S, Laschinger HK, Wong CA. The influence of empowerment, authentic leadership, and professional practice environments on nurses' perceived interprofessional collaboration. *J Nurs Manag*. 2016;24(1):E54–61. <https://doi.org/10.1111/jonm.12288>.
33. McCormack B, Dewing J, McCance T. Developing person-centred care: addressing contextual challenges through practice development. 2011.
34. Creswick N, Westbrook JI, Braithwaite J. Understanding communication networks in the emergency department. *BMC Health Serv Res*. 2009;9:247. <https://doi.org/10.1186/1472-6963-9-247>.
35. Efendi F, Aurizki GE, Yusuf A, McKenna L. "Not shifting, but sharing": stakeholders' perspectives on mental health task-shifting in Indonesia. *BMC Nurs*. 2022;21(1):165. <https://doi.org/10.1186/s12912-022-00945-8>.
36. Manley K, O'Keefe H, Jackson C, Pearce J, Smith S. A shared purpose framework to deliver person-centred, safe and effective care: organisational transformation using practice development methodology. *Int Pract Dev J*. 2014;4(1).
37. Snow K, Galaviz K, Turbow S. Patient outcomes following interhospital care fragmentation: a systematic review. *J Gen Intern Med*. 2020;35(5):1550–8. <https://doi.org/10.1007/s11606-019-05366-z>.
38. Nystrom M, Dahlberg K, Carlsson G. Non-caring encounters at an emergency care unit—a life-world hermeneutic analysis of an efficiency-driven organisation. *Int J Nurs Stud*. 2003;40(7):761–9. [https://doi.org/10.1016/S0020-7489\(03\)00053-1](https://doi.org/10.1016/S0020-7489(03)00053-1).
39. Kredt T, Adeniyi FB, Bateganya M, Pienaar ED. Task shifting from doctors to non-doctors for initiation and maintenance of antiretroviral therapy. *Cochrane Database Syst Rev*. 2014;7:CD007331. <https://doi.org/10.1002/14651858.CD007331.pub3>.
40. Niezen MG, Mathijssen JJ. Reframing professional boundaries in healthcare: a systematic review of facilitators and barriers to task reallocation from the domain of medicine to the nursing domain. *Health Policy*. 2014;117(2):151–69. <https://doi.org/10.1016/j.healthpol.2014.04.016>.
41. Tawfik DS, Sexton JB, Adair KC, Kaplan HC, Profit J. Context in quality of care: improving teamwork and resilience. *Clin Perinatol*. 2017;44(3):541–52. <https://doi.org/10.1016/j.clp.2017.04.004>.

42. Olson A, Rencic J, Cosby K, Rusz D, Papa F, Croskerry P, et al. Competencies for improving diagnosis: an interprofessional framework for education and training in health care. *Diagnosis*. 2019;6(4):335–41. <https://doi.org/10.1515/dx-2018-0107>.
43. Sinsky CA, Willard-Grace R, Schutzbank AM, Sinsky TA, Margolius D, Bodenheimer T. In search of joy in practice: a report of 23 high-functioning primary care practices. *Ann Fam Med*. 2013;11(3):272–8. <https://doi.org/10.1370/afm.1531>.
44. Cruess RL, Cruess SR, Boudreau JD, Snell L, Steinert Y. Reframing medical education to support professional identity formation. *Acad Med*. 2014;89(11):1446–51. <https://doi.org/10.1097/ACM.0000000000000427>.
45. Lacy BE, Chan JL. Physician burnout: the hidden health care crisis. *Clin Gastroenterol Hepatol*. 2018;16(3):311–7. <https://doi.org/10.1016/j.cgh.2017.06.043>.
46. Sovold LE, Naslund JA, Kousoulis AA, Saxena S, Qoronfleh MW, Grobler C, Munter L. Prioritizing the mental health and well-being of healthcare workers: an urgent global public health priority. *Front Public Health*. 2021;9:679397. <https://doi.org/10.3389/fpubh.2021.679397>.
47. Martinez-Gonzalez NA, Tandjung R, Djalali S, Rosemann T. The impact of physician-nurse task shifting in primary care on the course of disease: a systematic review. *Hum Resour Health*. 2015;13:55. <https://doi.org/10.1186/s12960-015-0049-8>.
48. Tear MJ, Reader TW, Shorrocks S, Kirwan B. Safety culture and power: interactions between perceptions of safety culture, organisational hierarchy, and national culture. *Saf Sci*. 2020;121:550–61. <https://doi.org/10.1016/j.ssci.2018.10.014>.
49. Reay T, Goodrick E, Waldorff SB, Casebeer A. Getting leopards to change their spots: co-creating a new professional role identity. *Acad Manage J*. 2017;60(3):1043–70. <https://doi.org/10.5465/amj.2014.0802>.
50. McCarthy, C, Boniol, M, Daniels, K, Cometto, G, Diallo, K, Lawani, A & Campbell, J. State of the world's nursing 2020: investing in education, jobs and leadership. Geneva: World Health Organisation. 2020. viewed 22 May 2024. <https://web.archive.org/web/20200407162231/https://www.who.int/publications-detail/nursing-report-2020>.
51. Maier CB. The role of governance in implementing task-shifting from physicians to nurses in advanced roles in Europe, U.S., Canada, New Zealand and Australia. *Health Policy*. 2015;119(12):1627–35. <https://doi.org/10.1016/j.healthpol.2015.09.002>.
52. Maier CB, Batenburg R, Birch S, Zander B, Elliott R, Busse R. Health workforce planning: which countries include nurse practitioners and physician assistants and to what effect? *Health Policy*. 2018;122(10):1085–92. <https://doi.org/10.1016/j.healthpol.2018.07.016>.
53. Guba EG, Lincoln YS. Competing paradigms in qualitative research. *Handbook Qual Res*. 1994;2(163–194):105.
54. Birt L, Scott S, Cavers D, Campbell C, Walter F. Member Checking: a tool to enhance trustworthiness or merely a nod to validation? *Qual Health Res*. 2016;26(13):1802–11. <https://doi.org/10.1177/1049732316654870>.
55. Slevin E, Sines D. Enhancing the truthfulness, consistency and transferability of a qualitative study: utilising a manifold of approaches. *Nurse Res*. 1999;7(2):79.
56. Karimi-Shahanjari A, Shakibazadeh E, Rashidian A, Hajimiri K, Glenton C, Noyes J, et al. Barriers and facilitators to the implementation of doctor-nurse substitution strategies in primary care: a qualitative evidence synthesis. *Cochrane Database Syst Rev*. 2019;4(4):CD010412. <https://doi.org/10.1002/14651858.CD010412.pub2>.
57. Amudha P, Hamidah H, Annamma K, Ananth N. Effective communication between nurses and doctors: barriers as perceived by nurses. *J Nurs Care*. 2018;7(03):1–6. <https://doi.org/10.4172/2167-1168.1000455>.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.