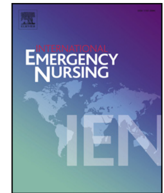
International Emergency Nursing 52 (2020) 100910

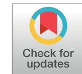
Contents lists available at ScienceDirect

International Emergency Nursing

journal homepage: www.elsevier.com/locate/aaen



Engagement under difficult conditions: Caring for patients with acute abdominal pain across the acute-care chain: A qualitative study



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ARTICLE INFO

Keywords:
Acute abdominal pain
Fundamentals of Care
Health professionals
Ambulance service
Emergency department
Surgical department

ABSTRACT

Background: Studies report that patients with acute abdominal pain do not always receive optimal care and can experience poor pain management, safety failures, and emotional harm. Deeper understanding of how health professionals experience care delivery is needed to improve care to patients with acute abdominal pain.
Aim: To explore, from the perspective of registered nurses and physicians, how care is provided for patients with acute abdominal pain in the acute care chain, and to identify barriers that they describe in the delivery of care.
Method: Registered nurses and physicians (n = 19) working in ambulance services, emergency departments, and surgical departments at five hospitals in Sweden were interviewed. A content analysis was performed.
Results: Five categories were identified; interaction: a decisive moment, competence and resources: not always available, guidelines: limited use, medical care: a main focus, and feedback and collaboration: limited across acute care chain.
Conclusion: This study adds new insights relating to how health professionals reflect on patient needs and obstacles to satisfying them. To deliver high quality care and meet patients' fundamental needs, there is a need of general guidelines and close collaboration in the acute care chain.

1. Introduction

Registered Nurse (RN) and physicians have the challenging task of protecting and promoting patients' human dignity by providing care that is timely, equal, knowledge-based, safe, and person-centered [1]. To achieve positive patient outcomes, health professionals need to preserve the patient's sense of control, provide adequate information, and treat the patient as a true partner [2–4].

1.1. Background

To provide high-quality in the care, RNs and physicians are required to provide evidence-based practice, which is the best available scientific evidence, quality improvement data, and clinical expertise, combined with the patient's unique conditions and preferences [5]. To provide high-quality outcomes, nursing care must be focused on identifying patients' fundamentals needs [6] by treating them as individuals, respecting their rights as people; and developing genuine caring relationships [7].

RNs and physicians in the acute-care chain (the ambulance service [AS], emergency department [ED], and surgical department) are one group of health professionals who provide care to the frequently occurring group of patients with acute abdominal pain (AAP). Symptoms of AAP range in severity and intensity, but the majority of patients who seek care experiences that their condition is serious and that they need pain management [8,9]. Patients with AAP is a complex group with many different conditions that make it difficult to diagnose and that treatments can vary widely. Patients also need help associated with the vulnerability and suffering caused by their dependency on RNs and physicians [10,11]. The importance of health professionals in building mutual trust and understanding with the patient is seldom mentioned or highlighted in care [7,12]. RNs and physicians follow guidelines for patients with AAP that are focused on organizational and diagnostic procedures [13]. These may improve the process and structure of care,

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https://doi.org/10.1016/j.ienj.2020.100910
Received 31 January 2020; Received in revised form 8 June 2020; Accepted 5 August 2020
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but their effects on patient health outcomes are relatively unstudied and less than convincing [14]. In this paper, the acute-care chain is defined as three departments assigned to provide care for patients with life-threatening or emergent and acute conditions.

The philosophy of person-centered care and the explanatory Fundamentals of Care (FoC) framework have the potential to improve the quality of care in the acute-care chain [6,15,16]. FoC is a framework linked to person-centered care that address different dimensions of patient care needs by establishing the relationship and assessing and delivering physical, psychosocial, and relational care elements within a wider acute-care context [6,17,18].

Studies report that patients with AAP do not always receive optimal care and can experience poor pain management, safety failures, and emotional harm [2–4,19–21]. National studies also report that guidelines for managing this patient group are not always used [13] and that RN managers focus mostly on medical care, often neglecting the importance of nursing care [22]. Given these reports, we wanted to explore how care is provided from the perspectives of the RNs and physicians. These professionals are stakeholders at the point of care and should ensure that patients in the acute-care chain are provided with evidence-based care. By exploring an untapped field of health professionals and describing their experiences of providing care, this study provides a deeper understanding of the care delivered across the acute-care chain.

1.2. Aim

The aim was to explore, from the perspective of RNs and physicians, how care is provided for patients with AAP in the acute care chain, and to identify barriers that they describe in the delivery of care.

2. Methods

We conducted a qualitative descriptive semi-structured interview study with an inductive approach.

2.1. Participants and setting

A strategic sample of RNs (n = 11) and physicians (n = 8) who provide care to patients with AAP in the acute care chain (AS, ED, and surgical department) were invited by email to participate. Participants were recruited from two university hospitals and three county hospitals in four different health care regions in Sweden. The sample was chosen to include participants with different background characteristics as regards gender and length of clinical experience in their professions. A demographic overview is presented in Table 1.

The acute care chain is usually initiated after a patient calls either the national care guide (1177) or the emergency number (1 1 2), which can activate AS. Patients can be recommend to seek care at an ED; they can also be referred there by a general practitioner or seek care there on their own, without any previous consultation. At the ED, patients are assessed and either discharged or admitted to a surgical ward for further care.

2.2. Data collection

The first author conducted all individual interviews (35–97 min) at the participants' workplace (n = 16) or by phone (n = 3) using an interview guide with open-ended questions (Table 2). The interviews, conducted May to December 2017, were audio-recorded. Minor adjustments were made to the interview guide after the first three interviews, which are included in the study. An overview of interview guide is presented in Table 2.

Table 1
Demographic characteristics of the participants (n = 19).

Variables	Registered nurses (n = 11)	Registered physicians (n = 8)
Age (yrs)		
Mean	37	36
Range	27–57	30–43
Gender (n)	8 women/3 men	5 women/3 men
Formal profession (n)		
Registered nurses	6	n/a
Clinical nurse specialists (ambulance care)	3	n/a
Clinical nurse specialists (surgical care)	2	n/a
Physicians under specialist training (emergency care)	n/a	2
Physicians under specialist training (surgery)	n/a	5
Workplace (n)		
Ambulance care service	4	0*
Emergency department	4	2
Surgical department	3	6
Years in the profession (n)		
0–5	1	4
6–10	4	2
> 10	5	2
Years at the workplace (n)		
0–5 (yrs)	3	8
6–10 (yrs)	4	0
> 10 (yrs)	5	0
Health professionals' workplace (n)		
County Hospital	7	2
University Hospital	4	6

* No physicians were employed to work with patients in this organization.

Table 2
Interview guide.

Main questions:
Could you please describe:
How the care for patients with acute abdominal pain is organized?
Who do you consider is important to collaborate with in the provision of care to patients with acute abdominal pain?
What do you think should be prioritized to ensure that the patient with acute abdominal pain receives optimal care?
What do you consider important when assessing a patient with acute abdominal pain?
The evidence you use when caring for a patient with acute abdominal pain.

Probing questions:
Can you tell me more about…; Can you provide examples…; What do you mean by…; Can you go into greater detail?

2.3. Data analysis

Conventional content analysis [23], also called inductive category development was used.

The first author transcribed the interviews, and the text was read repeatedly by the first and last authors to obtain a sense of the whole, as one would read a novel. N-Vivo software package (version 11) was used to organize the data and derive codes. These codes came directly from the text and became the initial coding scheme used by the first and last authors and subsequently discussed among all authors. The analysis process continued with sorting the codes into sub-categories and categories based on their links and relatedness [24]. An overview of process of the analysis is presented in Table 3.

Table 3
Process of the analysis.

Meaning unit	Code	Category
The care varies widely from colleague to colleague, since you are dealing with a condition and can't say what diagnosis the patient has. So I rest on my own experience in delivering care.	Experience guides assessment	Competence and resources: not always available

2.4. Ethical considerations

RNs' and physicians' perspectives on the care they provide to patients with AAP and the challenges they describe are important to explore, but this can be a sensitive issue as it may uncover weaknesses in their knowledge about care. Participants were given written and verbal information about the study and gave their informed written consent. To protect confidentiality, each participant is identified with a code so they cannot be identified. Approval from an ethical authority was not mandated and an advisory statement specified no objections to the study (Ref. 2015/460).

3. Results

The results are presented in five categories. Each category is initially presented with a summary of the findings across the care chain, followed by findings related to the different departments in the order of AS, ED, and surgical ward. Identified barriers in delivering care are presented in Table 4, and quotes reflecting the findings are presented in Table 5.

3.1. Interaction: A decisive moment

RNs and physicians described wanting to help the patient and moments in the interaction that were especially important for the best care outcome. They stressed the importance of giving hope and promoting human dignity in the acute phase and letting patients share their personal stories. RNs emphasized that, although the relationship with health professionals could survive as a long-term memory in the patient's life, from their perspective communication and understanding were part of a routine involving critical thinking to avoid missing important information. Even so, interactions were sometimes challenging due to communication difficulties (e.g., language barriers) time limitations due to the requirement to work quickly and process the patient through the system. Although the participants pointed out the importance of the interaction with the patient, they also talked about patient not as people but as a diagnosis or symptoms (e.g., an aorta or the acute abdomen) in need of assessment and treatment.

RNs at the AS felt it was important to be "a team with the patient" to be able to capture "correct" information, to not have a preconceived understanding about a patient's condition, and to let patients speak for themselves. The pre-hospital environment could sometimes be chaotic, conveying a disruptive environment, and could affected in this decisive moment by the interaction of agitated relatives.

Participants described that many patients experience a stressful situation when seeking care at the ED, that could block their ability to describe their needs. It is considered important to create a sense of security in patients by listening to their needs and keeping them informed, but this is not always possible. In a crowded ED, it is difficult to see and care for many patients at the same time in an optimal way. One physician emphasized that the focus should be not only on reaching a diagnosis, but also on providing help and seeing the patient as a person.

At the ward, RNs explained that it was not always obvious to involve the patient as part of the team, since colleagues and physicians at the surgical department had different approaches, e.g. old structures, like quick rounds with a medical task focus. RNs described the importance to give the patient time and let the them talk about problems that concerned them most. This personal approach in the interaction with the patient could be decisive where new important findings about patient's health conditions and care needs could appear.

3.2. Competence and resources: Not always available

Both RNs and physicians stated that the main objective of care was to make reasonable assumptions about the care needs based on the patient's condition and the care team's skills. The team's competence was considered important in making good assessments based on the patient's current medical history, physical findings, blood samples, and x-rays. Participants felt that colleagues varied in how they assessed patients, which caused them insecurity about the reliability of previous

Table 4
Categories including identified barriers across the acute care chain.

Categories	Barriers
Interaction: a decisive moment	- Communication difficulties with patient (e.g., language barriers, agitated family members) - A stressful situation that could block patients' ability to describe their needs - Not obvious to the team to involve the patient in the care - Demands to work quickly
Competence and resources: not always available	- Insecurity about earlier assessments due to colleagues' different skills - Unnecessary investigations (e.g., blood samples and x-rays) performed - Limited access to diagnostic tools - Lack of hospital beds
Guidelines: limited in use	- Hard to find and not matched to patients' needs - Many available, but with different details - Sometimes contain old routines, despite recently revision - Different departments perform duties without coordination
Medical care: a main focus	- Different medical approaches in the same organization - A medical diagnosis needed to provide evidence for clinical care - Delay of medical care due to missed nursing care needs earlier in the care chain
Feedback and collaboration: limited across acute care chain	- Limited response to the provided care - Limited support from managers in evaluating care - Important information easily missed at several handovers - Limited collaboration to develop the care between departments

Table 5
Quotes reflecting the findings related to the categories and the informant's occupation and department.

Quotes	*Related to category*	*Informant*	*Occupation*	*Department*
"It's important to establish cooperation with the patient in a short time […] but that will be greatly affected if the site is chaotic – if it's like that, all you want to do is get down to the truck, so it can be difficult to focus and get the right answer"	Interaction: a decisive moment	C	RN	Ambulance service
"Perhaps there should be a sign saying 'Welcome' right when you enter the ED. There could also be information about how you can get faster help if you go somewhere else. But it has to say 'Welcome to the ED' first! We sometimes forget that our job is not about producing illnesses – our job is to take care of patients who need help"	Interaction: a decisive moment	J	Physician	Emergency department
"It's not unusual that things are discovered here which had not been found at the ED. New information can come up as one simply sits next to the patient when they are lying in a more comfortable bed"	Interaction: a decisive moment	P	RN	Surgical Department
"God forbid that we admit the wrong patient! If I admit a patient who is not a surgery patient to surgery, I will hear about it!"	Competence and resources: not always available	O	Physician	Emergency Department
"To be quite honest, I don't usually pay so much attention to how the patient experiences their pain, because how much it hurts is always in the eye of the beholder. I look at the patient: If the patient is lying still and not moving; or if the patient rejects an examination [abdominal palpation]. So the most important things are my examination findings and the anamnesis – more than what the patient says on a pain scale"	Competence and resources: not always available	M	Physician	Surgical Department
"You often end up asking a colleague or a chief physician. If I'm lucky they show me the right guidelines, but if I'm not lucky, I just get 'Do what you think seems right'… or, 'This is what I usually do'! […] Some of my colleagues, whom I think are really skillful, I trust completely, as I know I can listen to them"	Guidelines: limited in use	J	Physician	Emergency Department
"I don't use any guidelines for 'acute abdominal pain', the largest patient group there is, but there are of course guidelines for diagnosis-specific guide lines and flow charts. That's what I use"	Guidelines: limited in use	S	Physician	Emergency Department
"If you think the issue is actually life-threatening, I'll want to make a preliminary diagnosis; otherwise I know from experience they often end up laying a long time in ED and possibly dying. If I had made a diagnosis the patient might have been seen to and been sent up to OR"	Medical care: a main focus	C	RN	Ambulance Service
"We're pretty bad about feedback. We never know what happens to the patient [later during their time at the hospital]. That means we're maybe not great at assessing the patient. We may have under-triaged [given too little care] – that could happen. You would want to know that. […] But usually we have the feeling we are over-triaging. […] For example, when we're having trouble figuring out what it is and the patient is critical, so […] we rush them into ED"	Feedback and collaboration: limited across acute care chain	Q	RN	Ambulance service
"I'm sure there are satisfied patients and I don't get to meet them! Because they don't come back. If I've sent the patient home and he comes back, I suspect he's displeased"	Feedback and collaboration: limited across acute care chain	K	Physician	Emergency Department
"If it is the way I think it is, that the majority of patients get better by themselves, it'd be nice to know that for sure. That would help me feel ok about sending the patient home. Otherwise we might have to modify our routines, so they don't come back"	Feedback and collaboration: limited across acute care chain	S	Physician	Surgical department

assessments and decisions. They explained that patients' appearance and ability to express themselves varied greatly, placing great demands on RNs and physicians to examine all patients correctly, since their need for assessments and pain management adapted to their needs could be easily ignored.

RNs explained that the primary objective of the AS was to make a quick assessment to identify care needs and exclude life-threatening conditions (e.g., ruptured aortic aneurysm), but this was challenging due to limited access to diagnostic tools and no access to the patient's record.

RNs and physicians in the ED stated that some physicians had low assessment skills (e.g., competence to interpret medical data) contributed to the need for extensive investigations to diagnose the patient. The respondents said that this risked causing harm and increased waiting times and workload as the ED is primarily aimed to be a "sorting center" to determine whether patients need to be admitted to a department. Physicians also said that when a patient's condition did not fit a clear diagnosis, colleagues' assessments differed based on their competences. In addition, a lack of hospital beds (on the wards) makes it difficult to assign patients to an appropriate ward, where health professionals have necessary experience providing care that fits their specific needs.

RNs on the ward described the importance of assessing patients' risks of falling, malnutrition, and pressure ulcers and starting treatments, but that it was sometimes difficult to do.

3.3. Guidelines: Limited in use

RNs and physicians reported that they rarely used the guidelines in clinical care; instead, they used their personal experience and common sense to guide their care for patients with AAP. Reasons for not following guidelines included lack of control over compliance; managers not monitoring this part of work (except when things go wrong); and too many, often conflicting, guidelines that could be difficult to find and not always match patients' needs. However, participants said they tried to use the guidelines as a "cookbook" for choosing medical assessments and measures, selecting drug doses, or deciding when a patient could be sent home. The guidelines were assumed to be evidence-based and to make care safer and more equal. RNs said that guidelines could contain old routines despite having recently been revised, although they were unable to provide specific evidence. The RNs valued guidelines on pain management, which gave them a tool for when the patient was in pain and no physician was present. In contrast, physicians said they had limited knowledge of the guidelines for patients with symptoms of AAP and only used diagnosis-specific guidelines and flow charts once the patient had received a diagnosis. Participants mentioned that old and out-of-date routines (e.g., that patients with AAP should not receive pain management before assessment) continue to affect today's care.

RNs in the AS said they were obliged to follow guidelines on work performance and were held responsible for any deviations. The vast number of detailed guidelines at the AS and ED was described as a problem: since AAP includes different diagnoses, participants needed to be aware of several guidelines in the organization. RNs and physicians reported that they rarely used guidelines and instead usually asked experienced colleagues how the patient should be cared for.

RNs on the ward suggested that different departments should design guidelines together, since various departments perform different duties in the care chain without coordinated consideration of pain management, nutrition, or hygiene.

3.4. Medical care: A main focus

The RNs and physicians explained that the performance of the care was all about medical care, focused on measuring pain management and remedying the medical condition. Participants said that the focus was on finding medical reasons to continue care and that during the performance of that care it was easy to forget that the patient could be in pain, dehydrated, or suffering for another reason. Evidence used while performing care was described as linked to a specific diagnosis rather than to a group of symptoms. It was considered important to have a common view of the care plan; otherwise, confusion could be created among health professionals and their patients. Nevertheless, physicians stated that different medical teams and hospitals sometimes had different opinions about important matters such as whether patient should be offered surgery or palliative treatment.

RNs in the AS specified the importance of initiating treatment and providing a clear handover to reduce the risk of harm and exposing the patient to unnecessary pain and waiting in the ED.

Participants in the ED argued for the importance of making quick decisions about how to initiate treatment, start pain management, and avoid waiting times. They also thought that taking certain measures gave patients a sense of security, which was considered important since insecurity might cause patients to avoid seeking care in the future.

RNs on the ward said that to provide accurate care they needed a care plan from the ED physicians. RNs described feeling frustrated and irritated when they could not initiate medical treatment or risk assessments for patients coming from the ED with their nursing care needs unmet (e.g., since this creates demands and delaying measures).

3.5. Feedback and collaboration: Limited across the acute-care chain

The RNs and physicians mentioned the absence of structured feedback and control over assessments, measures, and patients' experiences. RNs, citing a need for better collaboration throughout the acute-care chain, had experienced patients who had been treated in another department but had not received the nursing and medical care they were entitled to. Participants said that their only contacts with other organizations were at handovers, where despite routines important descriptions and recommendations could easily be misinterpreted, or in consultations. They described their frustration with having limited support and evaluation and never knowing how their patients experience care except through a patient notification highlighting the patients' experiences. Participants explained that the absence of feedback led them to question their own decisions and sporadically try to evaluate themselves to try to understand and make improvements.

RNs in the AS talked about their uncertainty about their assessments of patients' conditions, and they said that lack of feedback could lead to over- or under-use of alarm chain activations and resources in the ED.

In the ED and on the ward, RNs and physicians said they lacked knowledge about patients' care experiences, and they assumed that patients were dissatisfied with the care when they returned. They did not know what happened to patients after their visit or why patients sometimes returned, and they wanted more feedback to improve care.

4. Discussion

This study explored the perspectives of RNs and physicians on how care for patients with AAP is provided across the acute-care chain. The findings reflect the complexity of the group of patients that health professionals are faced with. Professionals strive to deliver high-quality and safe care across the acute-care chain, but they are challenged by many organizational barriers such as shortness of patient beds, conflicting evidence in guidelines, and limited feedback and collaboration across the departments. Nevertheless, the findings also reflect their engagement with the patients. The findings illuminate an organization where health professionals work hard, but perhaps too often need to use resources and their own competence to find solutions to organizational issues that are out of their control to change.

RNs and physicians in the acute-care chain described the importance of creating a positive relationship and engaging with the patient to identify care needs and support the patient. This is not

necessarily a new finding, since several studies conclude that the professional–patient relationship very valuable and may be threatened due to time constraints and other priorities [25–27]. Participants' descriptions testify to the existing problem that care is not organized to focus on the caring relationship. The importance of establishing a caring relationship to meet patient needs and deliver person-centered care is the foundation of the FoC [6,7,17]. The participants in this study were most concerned about the need to make medical assessments, often with a lack of resources and time pressures, and the limited use of guidelines, which created short cuts among the health professionals. Glans et al. (2015) [28] reported that health professionals' diagnostic practices vary widely and are mostly based on their own preferences. The current study supports this finding. Our participants were uncertain that their patients were properly assessed because colleagues often assessed the same patient differently, and they needed support to ensure the necessary competence in each care team. Our results are also supported by studies in which care was organized by guidelines, but managers passed responsibility for guideline compliance on to someone else [22] or the guidelines was of poor quality [13]. Patients could therefore hypothetically receive different treatments depending on where they were treated in the acute-care chain. Thus, we need to discuss how evidence-based the care is in the acute-care chain for patients with AAP. In the present study the health professionals provided care based mostly on their own abilities that can compromise the safety and quality of care. The focus on medical and physical measures at the expense of the patient's fundamental needs are echoed in managers' descriptions of care [22] and are worrying since care should consist of both high-quality nursing and effective medical care. In line with Feo et al. [29], fundamental needs were seen in this study to hold less value than other aspects of clinical care in the acute-care chain. However, the understanding of evidence-based work varies widely among RNs [30], and they need the support of managers to improve nursing care by providing resources to allow nursing work to become more evidence-based [6]. The present study increases our understanding of the gap between managers and health professionals as they refer to each other's responsibilities for providing evidence-based care to patients seeking care for AAP. This is an important finding identifying the serious issue of the unclear division of responsibilities within the organization. Managers have an important role on the system level to provide resources and create a culture and leadership that supports point-of-care health professionals in taking responsibility for providing equal, safe, and high-quality care [6,31,32]. RNs and physicians expressed a need for structured feedback, control of assessments and measures, knowledge of the patients' experiences, and better collaboration among the departments in the acute-care chain. Their engagement and wish to improve their delivery of care to patients with AAP are the up most important variables to highlight in improving care in the acute-care chain. The limited positive reports in this study on how the care is provided reveal a need for improvement [33], since several barriers challenge RNs and physicians' abilities to guarantee a level of care that at least does no harm and at best meets all patients' fundamental care needs. These findings will doubtless be scrutinized, but some conclusions are readily apparent. Health professionals need an organization that supports them in their efforts to deliver evidence-based care, and they need to have their competencies focused more on providing person-centered care and less on finding solutions to organizational problems in the care of patients with AAP.

4.1. Strengths and limitations

The strength of this study was that the sample included participants from several hospitals in different health care regions and three settings across the acute care chain. This approach prevents any particular hospital's culture or strategies from influencing the results and increases the transferability of the findings to other hospitals.

To minimize the risk that the results reflected respondents' general opinions or experiences of care, they were asked to give concrete clinical examples related to the patient group in question. One limitation was the difficulty of including specialist physicians with extensive experience. However, based on the complexity of the interview data (experiences from three different settings) and the quality of the interview dialogue, the final sample of 19 participants was considered adequate. Also, the last interviews did not add any new information to the analysis, which indicated that saturation of information power had been reached [34]. Some interviews were conducted over the phone at the request of interviewees or due to difficulties in finding time for in-person interviews. The richness of the telephone interviews was not found to be less than that of the face-to-face interviews.

To achieve trustworthiness [24] in the interviews, analysis, writing, and determination of the findings, the first and last author collaborated closely throughout the process. Additionally, the entire research team held several face-to-face meetings discussing the analysis until consensus was achieved on the results. This process contributed to ensuring that the findings were derived from the data.

4.2. Conclusion

This study adds new insights in the gaps in the literature relating to how health professionals reflect on patient needs and the obstacles to satisfying them, while also focusing on remedying medical conditions. To deliver high-quality care to this heterogenous group of patients and meet their fundamental needs, there is need of general guidelines and close collaboration between all health professionals in the acute care chain.

Ethical statement

Ethical approval by the Regional Ethics Committee in Uppsala (Ref. 2015/460).

Funding information

The study was funded by Uppsala University Hospital, Uppsala Sweden.

Conflict of interest

The authors declare no conflicts of interest.

CRediT authorship contribution statement

Alexander Tegelberg: Methodology, Investigation, Data curation, Formal analysis, Writing - original draft. **Åsa Muntlin:** Conceptualization, Methodology, Writing - review & editing. **Claes Juhlin:** Formal analysis, Writing - review & editing. **Eva Jangland:** Conceptualization, Methodology, Formal analysis, Writing - original draft, Writing - review & editing, Supervision.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ienj.2020.100910.

References

[1] Kangasniemi M, Vaismoradi M, Jasper M, Turunen H. Ethical issues in patient safety: Implications for nursing management. Nurs Ethics 2013;20(8):904–16.
[2] Forsgärde E-S, From Attebring M, Elmqvist C. Powerlessness: Dissatisfied patients' and relatives' experience of their emergency department visit. Int Emerg Nurs 2016;25:32–6.
[3] Avallin T, Muntlin Athlin Å, Elgaard Sørensen E, Kitson A, Björck M, Jangland E. Person-centred pain management for the patient with acute abdominal pain: An ethnography informed by the Fundamentals of Care framework. J Adv Nurs

2018;74(11):2596–609.
[4] Booker MJ, Purdy S, Shaw ARG. Seeking ambulance treatment for ‘primary care’ problems: a qualitative systematic review of patient, carer and professional perspectives. BMJ Open 2017;7(8):e016832.
[5] Melnyk BM, Gallagher-Ford L, Long LE, Fineout-Overholt E. The establishment of evidence-based practice competencies for practicing registered nurses and advanced practice nurses in real-world clinical settings: proficiencies to improve healthcare quality, reliability, patient outcomes, and costs: EBP competencies for practice. Worldviews Evid-Based Nurs 2014;11(1):5–15.
[6] Kitson A, Conroy T, Kuluski K, Locock L, Lyons R. Reclaiming and redefining the fundamentals of care: Nursing's response to meeting patients’ basic human needs. School of Nursing, Faculty of Health Sciences, The University of Adelaide South Australia; 2013.
[7] Feo R, Donnelly F, Muntlin Athlin Å, Jangland E. Providing high-quality fundamental care for patients with acute abdominal pain: A qualitative study of patients’ experiences in acute care. J Health Org Manage 2019;33(1):110–23.
[8] Cervellin G, et al. Epidemiology and outcomes of acute abdominal pain in a large urban Emergency Department: retrospective analysis of 5,340 cases. Ann Transl Med 2016;4(19).
[9] Thijssen WA, et al. Complaints and diagnoses of emergency department patients in the Netherlands: a comparative study of integrated primary and emergency care. PLoS One 2015;10(7):e0129739.
[10] Ahlenius M, Lindström V, Vicente V. Patients’ experience of being badly treated in the ambulance service: A qualitative study of deviation reports in Sweden. Int Emerg Nurs 2017;30:25–30.
[11] Holmberg M, Forslund K, Wahlberg AC, Fagerberg I. To surrender in dependence of another: the relationship with the ambulance clinicians as experienced by patients. Scand J Caring Sci 2014;28(3):544–51.
[12] Rantala A, Ingoldsson A, Persson EI. “We are already person-centred in our practice”—A Qualitative study of ambulance clinicians’ experiences of person-centred care. Healthcare 2019.
[13] Muntlin Athlin Å, Juhlin C, Jangland E. Lack of existing guidelines for a large group of patients in Sweden: a national survey across the acute surgical care delivery chain: Lack of existing guidelines for patients. J Eval Clin Pract 2017;23(1):89–95.
[14] Lugtenberg M, Burgers JS, Westert GP. Effects of evidence-based clinical practice guidelines on quality of care: a systematic review. BMJ Qual Saf 2009;18(5):385–92.
[15] Alharbi TSJ, Carlström E, Ekman I, Jarneborn A, Olsson L-E. Experiences of person-centred care – patients’ perceptions: qualitative study. BMC Nurs 2014;13(1):28.
[16] Brännström M, Boman K. Effects of person-centred and integrated chronic heart failure and palliative home care. PREFER: a randomized controlled study: PREFER: a randomized controlled study. Eur J Heart Fail 2014;16(10):1142–51.
[17] Kitson AL, Muntlin Athlin Å, Conroy T. Anything but basic: Nursing's challenge in meeting patients’ fundamental care needs: anything but basic. J Nurs Scholarsh 2014;46(5):331–9.
[18] Feo R, Conroy T, Marshall RJ, Rasmussen P, Wiechula R, Kitson AL. Using holistic interpretive synthesis to create practice-relevant guidance for person-centred fundamental care delivered by nurses. Nurs Inq 2017;24(2):e12152.
[19] Blackburn J, Ousey K, Goodwin E. Information and communication in the emergency department. Int Emerg Nurs 2019;42:30–5.
[20] Jangland E, Teodorsson T, Molander K, Muntlin Athlin Å. Inadequate environment, resources and values lead to missed nursing care: A focused ethnographic study on the surgical ward using the Fundamentals of Care framework. J Clin Nurs 2018;27(11-12):2311–21.
[21] Jangland E, Kitson A, Muntlin Athlin Å. Patients with acute abdominal pain describe their experiences of fundamental care across the acute care episode: a multi-stage qualitative case study. J Adv Nurs 2016;72(4):791–801.
[22] Tegelberg A, Jangland E, Juhlin C, Muntlin Athlin Å. Who is in charge of the care of patients with acute abdominal pain? An interview study with managers across the acute care chain. J Clin Nurs 2019;28(19-20):3641–50.
[23] Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. Qual Health Res 2005;15(9):1277–88.
[24] Lincoln YS, Guba EG, Pilotta JJ. Naturalistic inquiry. SAGE Publications; 1985.
[25] Aiken L, Rafferty AM, Sermeus W. Caring nurses hit by a quality storm. Nursing Standard 2014;28(35):22–5.
[26] Ball JE, Murrells T, Rafferty AM, Morrow E, Griffiths P. ‘Care left undone’ during nursing shifts: associations with workload and perceived quality of care. BMJ Qual Saf 2014;23(2):116–25.
[27] Schultz H, Qvist N, Mogensen CB, Pedersen BD. Experiences of patients with acute abdominal pain in the ED or acute surgical ward – A qualitative comparative study. Int Emerg Nurs 2013;21(4):228–35.
[28] Gans SL, Pols MA, Stoker J, Boermeester MA. Guideline for the diagnostic pathway in patients with acute abdominal pain. Dig Surg 2015;32(1):23–31.
[29] Feo R, Kitson A. Promoting patient-centred fundamental care in acute healthcare systems. Int J Nurs Stud 2016;57:1–11.
[30] Karlsson A, Lindeborg P, Gunningberg L, Jangland E. Evidence-based nursing—How is it understood by bedside nurses? A phenomenographic study in surgical settings. J Nurs Manage 2019;27(6):1216–23.
[31] Grol R, Grimshaw J. From best evidence to best practice: effective implementation of change in patients' care. The Lancet 2003;362(9391):1225–30.
[32] National Board of Health and Welfare (Socialstyrelsen), SOSFS 2011:9 Management system for systematic quality work (Ledningssystem för systematiskt kvalitetsarbete). 2011.
[33] Smeds-Alenius L, Tishelman C, Lindqvist R, Runesdotter S, McHugh MD. RN assessments of excellent quality of care and patient safety are associated with significantly lower odds of 30-day inpatient mortality: A national cross-sectional study of acute-care hospitals. Int J Nurs Stud 2016;61:117–24.
[34] Malterud K, Siersma VD, Guassora AD. Sample size in qualitative interview studies: guided by information power. Qual Health Res 2016;26(13):1753–60.