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Short running title

Negotiated mobilization in an ICU

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Authorship
All authors have made contributions to the paper. Eva Laerkner (EL), Ingrid Egerod (IE) and Helle Plough Hansen (HPH) are all responsible for the design of the study. EL conducted the data generation. IE, HPH, Finn Olesen (FO) and Palle Toft (PT) were all involved in the analysis and interpretation of the data in collaboration with EL. EL drafted the article in collaboration with IE, FO, PT and HPH. All the authors continuously commented and revised the paper during the writing process. Finally, all the authors (EL, IE, FO, PT and HPH) gave their final approval of the paper prior to this submission. All the authors (EL, IE, FO, PT and HPH) agreed to be accountable for all aspects of the work.

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Conflicts of Interest statement

The authors declare that there is no conflict of interest.

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Title

Negotiated mobilization: An ethnographic exploration of nurse-patient interactions in an intensive care unit.

Abstract

Aims and Objectives
We aimed to explore nurse-patient interactions in relation to the mobilization of non-sedated and awake mechanically ventilated patients in the intensive care unit.

Background
Lighter sedation has enabled the early mobilization of mechanically ventilated patients, but little is known about the nurses’ role and interaction with critically ill patients in relation to mobilization.
**Design and Methods**

The study had a qualitative design using an ethnographic approach within the methodology of interpretive description. Data were generated in two intensive care units in Denmark, where a strategy of no sedation was applied. Participant observation was conducted during 58 nurse-patient interactions in relation to mobilization between nurses (n=44) and mechanically ventilated patients (n=25). We conducted interviews with nurses (n=16) and patients (n=13) that had been mechanically ventilated for at least three days. The data were analysed using inductive, thematic analysis. The report of the study adhered to the COREQ checklist.

**Findings**

We identified three themes: “Diverging perspectives on mobilization” showed that nurses had a long-term and treatment-oriented perspective on mobilization, while patients had a short-term perspective and regarded mobilization as overwhelming in their present situation.

“Negotiation about mobilization” demonstrated how patients actively negotiated the terms of mobilization with the nurse. “Inducing hope through mobilization” captured how nurses encouraged mobilization by integrating aspects of the patient’s daily life as a way to instil hope for the future.

**Conclusions**

Exploring the nurse-patient interactions illustrated that mobilization is more than physical activity. Mobilization is accomplished through nurse-patient collaborations as a negotiated, complex and meaningful achievement, which is driven by the logic of care, leading to hope for the future.

**Relevance to clinical practice**

The study demonstrated the important role of nurses in achieving mobilization in collaboration and through negotiation with mechanically ventilated patients in the intensive care unit.

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Key words
Conscious sedation, early mobilization, ethnography, intensive care, interview, mechanical ventilation, nursing care, qualitative research

What does this paper contribute to the wider global clinical community?
• The importance of negotiated nurse-patient collaboration in relation to the mobilization of mechanically ventilated patients is highlighted in the context of no sedation.

• Nurses and patients have diverging perspectives on mobilization potentially posing a challenge to nurses who wish to do what is best for their patients.

• Patients’ hope for the future and faith in recovery could be induced through mobilization by creating a coherent story involving patients’ everyday lives in nurse-patient interactions.

Introduction
The past 15-20 years has seen a change in sedation practice towards lighter sedation of mechanically ventilated patients in intensive care units (ICUs) (Wunsch & Kress, 2009). The ongoing development of ventilators capable of synchronizing with the respiratory pattern of the patient coupled with an increased focus on pain management has enabled protocols of lighter or no sedation in ICUs (Moreira & Serpa Neto, 2016). The duration of intensive care, hospitalization and mechanical ventilation is shorter in non-sedated patients than in sedated patients with daily sedation interruption (Strom, Martinussen, & Toft, 2010). Moreover, non-
sedated patients are more alert and awake than sedated patients with daily sedation interruption during the first week in an ICU (Laerkner, Stroem, & Toft, 2016). Updated sedation guidelines are increasingly recommending minimal or no sedation in ICUs (Devlin et al., 2018; Fonsmark et al., 2015). The declared goal is the awake and comfortable mechanically ventilated patient who is able to communicate and collaborate. It follows that lighter sedation enables early mobilization of intubated patients (Kress, 2013). We assume that the new situation, where mechanically ventilated patients are able to communicate, can have impact on nurse-patient interactions. Therefore, in this paper, we will focus on the nurse-patient interaction in relation to the mobilization of mechanically ventilated patients to increase knowledge of the care of the awake and intubated patient.

**Background**

Interaction occurs in situations where two or more people or things communicate with or react to each other. Interaction between nurses and patients during mechanical ventilation is usually brief, related to procedures and mostly nurse-driven (Nilsen et al., 2014). ICU nurses are apt to initiate more contact when patients are awake and during the late, more stable stages of critical illnesses (Nilsen, Sereika, & Happ, 2013). Investigation of nurse-patient interactions during mechanical ventilation shows that common modes of nursing communication are non-verbal, such as eye contact and touch, or verbal, using short, closed-ended questions and repetition. Patient communication is often limited to yes/no signals and other non-verbal gestures (Happ et al., 2011). Nurses who communicate by praising, smiling and providing expanded information yield positive patient behavior, such as visual and physical contact, maintaining attention and following instructions (Nilsen et al., 2014). Being awake enables patients to communicate their desires, needs and concerns, even when the interaction is
limited by weakness and the body is constricted by equipment (Laerkner, Egerod, Olesen, & Hansen, 2017). Introducing a strategy of no sedation entails a strong emphasis on nurse presence at the bedside to lessen patient anxiety through reassurance and information (Strom et al., 2010). Holm and Dreyer (2017) highlights that this requires a new mindset in nursing, where communication is an integral component that is continuously adjusted and adapted to patients’ needs and abilities.

The paradigm shift in sedation from deep to minimal or no sedation has paved the way for the early mobilization of mechanically ventilated patients (Kress, 2013). Early mobilization increases the patient’s functional capacity compared to more sedentary patients (Girard et al., 2017). Early mobilization is usually initiated 2-5 days after ICU admission, using passive or active movement or position change (Hodgson et al., 2015). Early mobilization is beneficial to reducing ICU delirium and increasing muscle mass, strength, quality of life, and functional capacity at hospital discharge (Dunn et al., 2017; Schweickert et al., 2009). Vincent et al. (2016) introduced the early Comfort using Analgesia, minimal Sedatives and maximal Human care (eCASH) philosophy and highlighted how less or no sedation, patient-centered care, patient involvement and early mobilization are core components in achieving comfort and recovery in the ICU. Early mobilization in the ICU is often accomplished by a team approach, where doctors determine patient safety and physiotherapists establish the training programme and instruct patients and nurses. When physiotherapists are absent, nurses are responsible for mobilization (Bassett, Vollman, Brandywene, & Murray, 2012; Hickmann et al., 2016). However, in the development of mobilization programmes and algorithms for critically ill patients, there is an emphasis on physiological parameters, patient stability and the need for technical support to ensure the feasibility and safety of mobilization (Hickmann et al., 2016). Although lesser use of sedation
encourages nurse-patient interaction and enables patient mobility, studies are lacking that explore the role of nurses in achieving mobilization and nurse-patient interactions in relation to mobilization when patients are awake during mechanical ventilation.

**Aim**
The aim was to explore nurse-patient interactions in relation to the mobilization of non-sedated and awake mechanically ventilated patients in the intensive care unit.

**Methods**

**Design and setting**
The present study focuses on the interactions between nurses and awake, mechanically ventilated in relation to mobilization. The study is part of a larger qualitative study using an ethnographic approach to explore the experiences, actions and interactions of nurses and awake, mechanically ventilated patients. The overall study was based on interpretive description, an applied, qualitative approach inspired by ethnography, grounded theory and phenomenology (Thorne, 2016). Interpretive description differs from these traditional theoretical foundations by a strong orientation towards development of practice. The strength of interpretive description is the vigorous quest for exploring practical concerns and striving towards generating knowledge relevant for clinical nursing. Generation for this part of the study was participant observation in the ICU, including interviews with nurses and patients (Emerson, Fretz, & Shaw, 2011; Spradley, 1980; Tjørnhøj-Thomsen & Ploug Hansen, 2017). These methods were chosen to obtain insights into the activities of everyday practice in the ICU. Our empirical study was conducted during 102 days of fieldwork over a period of 13 months in two ICUs in 2011-2013.
The context of the study consisted of two level-three medical-surgical adult ICUs (unit A and B) in a university hospital in Denmark with seven and nine beds respectively. The units were purposively chosen because they had implemented a strategy of no sedation. The no sedation strategy of mechanically ventilated patients focuses on pain management and no routine use of sedation (Strom et al., 2010). The selected ICUs did not use mobilization guidelines, but an interdisciplinary team consisting of physicians, physiotherapists and nurses was responsible for patient mobility. A range of active movement, such as walking and standing, and passive movement, such as in-bed activities or transfer from bed to chair by mechanical lift, were common types of mobilization initiated in the units. Approximately 75% of the nurses had ICU certification and the nurse-patient ratio was 1:1.

Data generation and participants
We collected data from three sources: participant observation and individual interviews with nurses and patients. Participant observation was carried out by the first author who participated in casual work in the ICU, such as assisting during patient mobilization or passing equipment to the nurse. The first author is a former ICU nurse and works at a research department associated with the two ICUs. Mechanically ventilated patients who were alert and calm, assessed with a score of zero on the Richmond Agitation and Sedation Scale (RASS) (Sessler et al., 2002) (Table 1) and the nurses, who cared for them, were observed. All patients were acutely admitted to the ICU.

TABLE 1 about here Richmond Agitation and Sedation Scale (RASS)

Place, time, actors, activities and interactions structured the focus of participant observation (Spradley, 1980). Brief fieldnotes were taken in the ICU, and more detailed descriptions were written after each observation. Notes written from patient to nurse were included, by patient

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permission, as examples of communicative interaction. To fulfill the aim of this part of the study, we solely used data from observations of nurse-patient interactions in relation to mobilization with no other health professionals, such as a physiotherapist or physician present. These nurse-patient interactions were observed in 58 days among 25 different patients and 44 nurses, mostly during the afternoons, evenings and weekends. The different types of mobilization are presented in Table 2. The characteristics of participants are presented in Tables 3 and 4.

TABLE 2 about here Mobilization types during observations

TABLE 3 about here Participant characteristics (Nurses)

TABLE 4 about here Participant characteristics (Patients)

In-depth individual interviews were conducted with 16 nurses, who were purposively selected according to maximum range of ICU experience (6 months to 21 years), gender (14 females and 2 males), and experience of caring for non-sedated and awake, mechanically ventilated patients (Table 3). Interviews lasted 41 – 87 minutes and were conducted at the hospital at their request. The nurses were encouraged to draw on particular practice experiences. As 10 of the nurses also had been observed during mobilization interactions, these situations were addressed in the interviews.

Finally, interviews were conducted with 13 patients ≥ 18 years (range 50-86), who had followed the no sedation strategy and had been on mechanical ventilation for at least 3 days (range 3-70). All patients, eight male and five female, had been assessed with a RASS score of zero 57 – 97% of the days on mechanical ventilation (Table 4). The individual, semi-structured interviews lasted 50 – 120 minutes and were conducted in their homes at 2 - 4 months post-ICU discharge. As nine of the 13 patients had been observed in the ICU, data

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from participant observations were brought into the interviews, enabling patients to elaborate on situations from their ICU stay (Tjørnhøj-Thomsen & Whyte, 2008). All interviews with nurses and patients were conducted, audiotaped and transcribed by the first author.

**Data analysis**

The data were analysed using a qualitative, descriptive and interpretive thematic analysis (Thorne, 2016). Interpretive description is grounded in an interpretive orientation that acknowledges the constructed and contextual nature of human experience (Thorne, Kirkham, & MacDonald-Emes, 1997, p.172). Initial analysis was performed by the first author, starting with identifying mobilization interactions in fieldnotes and interviews with nurses and patients. Inductively coded data were sorted into broad-based meaning units across the material and initial themes were formulated. The analytical process was constantly moving back and forth between data, coding and emerging themes. To avoid preliminary closure, the analysis continued as a reflective and dialectic process in dialogue with all authors before reaching agreement on three themes. The thematic findings were interpreted further in dialogue with existing literature and theoretical concepts in the discussion.

Lincoln and Guba’s (1985; 1986) criteria of credibility, dependability, confirmability, transferability and authenticity were applied to ensure trustworthiness. Credibility was sought through prolonged engagement in ICUs embracing the strategy of no sedation, combining participant observation and interviews as research methods. Dependability was increased by detailed descriptions of methods, participants and by use of data excerpts to provide transparency. Integrating investigators with perspectives from nursing, medicine, anthropology and philosophy intensified reflectivity and increased confirmability. We ensured transparency and provided authenticity by presenting empirical excerpts from fieldnotes,

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interviews and patient communication notes during the thematic description. Finally, we explored essential aspects of nurse-patient interaction in the context of no sedation. These findings could inform other ICUs of concerns and challenges when a minimal or no sedation strategy is introduced, which could increase transferability. To follow the ECUATOR recommendations to ensure clarity and quality of this qualitative study, the COnsolidated criteria for REporting Qualitative research (COREQ) checklist was followed (Tong, Sainsbury, & Craig, 2007) (See Supplementary File 1).

**Ethical approval**

The study was conducted in accordance with the Helsinki Declaration (WMA, 2013) and reviewed by the Scientific Committee in the Region of Southern Denmark. Permission to access health information and store personal data was obtained from the Danish Health Authority and the Danish Data Protection Agency. All participating nurses and patients received written and verbal information from the first author about the study prior to observations. For ethical reasons, the patients should be assessed as alert, calm and non-delirious, according to the Confusion Assessment Method for the ICU (CAM-ICU) (Ely, 2014), at the time of the observation. Consent for participant observation was given and reconfirmed if the patient or nurse was observed for more days. Written informed consent was obtained from all participants, who were informed of the voluntary nature of the study and the option to withdraw consent at any time. All participants were given pseudonyms to ensure anonymity.
Findings
We identified three themes describing patterns of nurse-patient interactions in relation to mobilization: “Diverging perspectives on mobilization”; “Negotiation about mobilization” and “Inducing hope through mobilization”. In the following, we have selected a fieldnote that describes nurse-patient interaction in relation to patient mobilization and illustrates the three themes in our study. The patient is Mrs. Larsen, a 57-year old woman with severe pneumonia and heart failure, and the nurse is Jenny, who has four years of ICU nursing experience.

“The time is 4 pm. I am in the patient room observing Mrs Larsen. She has a tracheotomy and is on a ventilator with pressure support, peep 12, and 55% oxygen. She cannot breathe without the ventilator and she is lying in bed, dozing lightly. The nurse, Jenny, is standing by the bed and is about to administer some i.v. medication. I notice a picture of a large dog and some children’s drawings taped to the i.v. stand at the end of the bed. Jenny goes over to Mrs Larsen and says something to her about getting out of bed and sitting in a chair. Jenny points to an armchair next to the bed. Mrs Larsen shakes her head and mouths a few words. I walk closer to the bed. Jenny crouches beside Mrs Larsen’s bed and begins to explain that it is important that she gets out of bed if she is to get the strength to come off the ventilator. Mrs Larsen shakes her head again and leans heavily back in bed. “Are you very tired?” Jenny asks. Mrs Larsen nods. Jenny takes Mrs Larsen by the hand. Shortly afterwards, Jenny asks whether Mrs Larsen’s daughter is coming today. Mrs Larsen opens her eyes and nods. Jenny asks when the daughter is coming and Mrs Larsen writes a ‘6’ in the air with her finger. Jenny says: “Should we then agree that you get into the chair at a quarter to six, so you are sitting when she comes? It’s more enjoyable for both of you, if you’re sitting, so she can see that you’re making progress”. Mrs Larsen nods and smiles. Jenny looks at the picture of the dog at the end of the bed. “You’d like to get home to Shelly, wouldn’t you?” she says. Mrs Larsen looks towards the picture of the dog and nods. With gestures and lip-reading, Jenny (and I) understands that the dog Shelly is being cared for by Mrs Larsen’s sister, while she is in hospital. “I can see it is important that you get your strength back, so you can go home. So, it’s also important that you get out of bed, even though it might be hard. We’ll help you. I am sure that Shelly will be happy to see you again”, says Jenny and squeezes Mrs Larsen’s hand. Mrs Larsen
Diverging perspectives on mobilization
Data from observations and interviews demonstrated that nurses and patients had diverging perspectives on mobilization. Nurses mostly presented mobilization as part of the treatment and used various arguments to inform, convince, motivate and encourage the patients to get out of the bed. This was illustrated in the fieldnote with Mrs. Larsen and Jenny. Jenny focused on the long-term importance of physical activity, whereas Mrs. Larsen found mobilization overwhelming in her present state of weakness. Nurses applied different approaches to encourage mobilization. Patience, planning ahead, ensuring safety and providing information about the physical benefits of mobilization were ways to support the patient. Nurses regarded mobilization as part of the overall ICU treatment focusing on the long-term perspective of recovery.

"That the patient should get out of bed has to do with the future; that they have to use their muscles. It means that the patient recovers faster and can move to the general ward sooner. To patients that just don’t want to [mobilize], I say ‘this is medicine’. It’s a part of the treatment.” (Anne, 11 years of ICU experience)

Patients had a personal and situational perspective of mobilization and perceived it as overwhelming. Patients used non-verbal articulations, such as facial expressions or bodily movements, to communicate with the nurses. However, the patients were able to form simple words, such as “no” or “not now”, with their lips, or to write notes. Figure 1 shows a note to a nurse written by the patient, Mr Mortensen, a 69-year-old man, orally intubated with a cardiac infection, expressing reluctance towards mobilization using a mechanical bed lift.
Patients often felt too exhausted to get out of bed. They expressed being unable to mobilize because of fatigue, fear of pain and shortness of breath.

“I felt so exhausted... I couldn’t move... so when they [the nurses] said that I had to get out of bed I just thought... no way... I was barely alive.” (Mr Knudsen, a 71-year-old man with sepsis)

Some patients were concerned that mobilization might be harmful and expressed fear and uncertainty of what out of bed activities could lead to.

“I was scared when I had to get out of bed... something could go wrong and I was worried” (Mr Steensen, a 61-year-old man with necrotizing fasciitis)

Patients’ bodily weakness, dependability on technological equipment and need of support might have reinforced the patients’ insecurity about mobilization. It was observed that some patients tried to grab or hold on to their endotracheal tube during mobilization, which could be a way to prevent the tube from being pulled out, when they moved. Some patients feared loss of control and lack of safety when they were transferred from bed to chair by the mechanical bed lift. They were unable to act independently, yet they did not always trust in the abilities of the nurses.

“Well, I didn’t want to get out of bed, because it was so painful to sit in the chair, and all that with the lift was uncomfortable. And I didn’t always think that they [the nurses] had complete control of that lift.” (Mrs Jensen, a 77-year-old woman with pneumonia)
According to the fieldnotes, it seemed that some patients did not comprehend the reason for mobilization when they were in the ICU. When interviewed at a later time, they understood the importance of mobilization but explained that it was too much to take in while being critically ill.

“Oh course, I know that mobilization is important, but back then [in the ICU] I just couldn’t understand what happened. I couldn’t take it in. I was just so sick and tired.”

(Mrs Flint, a 57-year-old woman with sepsis)

Observation of nurse-patient interactions showed that nurses used their clinical experience as leverage to convince patients to trust them during mobilization. Nurses drew on their previous experiences with other patients, who had successfully mobilized, to encourage the present patients to accomplished mobilization.

“I think it is important to have some clinical experience with mobilization of severely ill ICU patients. This way, I can motivate the patient by telling stories about other patient situations that I have experienced.”  (Doris, 18 years of ICU experience)

**Negotiation about mobilization**

Participant observation captured the ongoing negotiation of mobilization. Nurses provided patients with the opportunity to come to an agreement and decide when and how they wished to be active. This was a way of relinquishing some control to the patient. The introductory fieldnote provided an example of how Jenny and Mrs Larsen negotiated the timing of mobilization. Nurses expressed that mobilization was easier to accomplish if the patients were involved and participated in decision-making. Participant observation enabled a contemporary view of nurses as they provided the patient with different options for physical activity, such as bed-cycling, sitting on the side of the bed, standing, walking or sitting in a chair. Mostly, nurses respected the agreements about the timing and duration of mobilization. This was important to keep a trusting relationship with the patient.
“It’s important to me that I stick to the agreements I make with the patients, so they don’t lose their faith in me. If I make an agreement about when and how long they should mobilize, I keep my part of the deal. Because, if we [nurses] don’t keep our word, the patients won’t get up next time. I think we’ve come a long way by negotiating. It’s also a way of showing our respect for the patient.” (Dina, 21 years of ICU experience)

Alertness during mechanical ventilation promoted early mobilization, but nurses were concerned whether patients understood the risk of inactivity. Nurses revealed that it was easier to provide a balance between activity and bed rest when they knew the patients. Knowledge of patients’ capability, medical condition, mood, strength and endurance was important. Nurses’ awareness of patients’ concerns and wishes was important to the patients, as they felt acknowledged. It encouraged the patients to feel that their opinion mattered.

*I think they [the nurses] listened to me, so I could be part of the decision about whether it [mobilization] was going to be now, or if I could just wait slightly to get up. I think that meant something. Because I couldn’t manage it [mobilization] at all, but they [the nurses] said that I could rest for a couple of hours, it was easier to prepare myself and do it.*” (Mrs Lund, a 57-year-old woman with sepsis)

It was challenging for the patients if nurses enforced mobilization without negotiation. Lack of involvement was experienced as harsh and unpleasant.

*“She [the nurse] said that I had to get up in the chair. I shook my head because I didn’t like to be moved in the hoist. But the nurse just said that she was the one in charge and that I had to get up right now.”* (Mrs Flint, a 57-year-old woman with sepsis)
Nurses wanted to involve patients but were challenged when patients refused mobilization. The nurses explained how they were apprehensive towards the patients’ capability to make decisions about rejecting mobilization and emphasized their authoritative position in the nurse-patient relation. Most of the nurses stressed that negotiation about mobilization was only possible to some extent.

“We [the nurse and the patient] can’t negotiate about whether the patient is to be mobilized, but we can negotiate about when and how and for how long. But, in the end, it is of course us [nurses] who have the power to decide, but I think it is important that the patient is involved.” (Jane, nine years of ICU experience)

Nurses felt responsible that mobilization was achieved. Patients agreed that mobilization had to be enabled mainly by health professionals, because it was not something they felt they could grasp or initiate, being critically ill.

Inducing hope through mobilization
Observation of nurse-patient interactions showed how nurses induced hope for the patient through mobilization. Cheering, praising, and listening to patients were ways of supporting their progress.

“In the situation, I’ll try to encourage the patients to move on by praising their progress and we give them hope about their future.” (Julie, 11 years of ICU experience)

Nurses described how they used the patients’ daily lives and prospects of leaving the ICU as sources of encouragement. The nurses talked to patients about going home, being with family, friends and pets, and pursuing their interests and hobbies. This is illustrated in the introductory fieldnote, in which Jenny spoke with Mrs. Larsen about her daughter and her dog. As such, mobilization had the dual function of improving physical activity and inducing
hope for the future. It became a narrative that extended activity in hospital to the familiar home arena. Keeping focus on the long-term perspective could be challenging, as the patients’ concern was oriented towards getting through a here and now situation.

“They [the nurses] wanted me to sit in a chair. It should be good for my lungs, they said. But I just felt that all the machinery in my bodily [functions] was broken. Nothing really worked. So I think my focus was just to hang in there, getting through the day”

(Mr Rasmussen, a 54 year-old-man with pancreatitis and sepsis)

The nurses considered that they might underestimate the patients’ exhaustion. It was a fine balance between rest and activity encouraged by cheer and assurance, without overruling the patient. The nurses felt challenged and frustrated about how far they could go in boosting mobilization. On the other hand, they saw that physical activity served several functions for the patients, as it also had positive effects on the patient’s mood and faith in recovery.

**Discussion**

This study explored nurse-patient interactions in an ICU setting for awake, mechanically ventilated patients, capturing nurses’ and patients’ diverging perspectives on mobilization. Nurses emphasized the long-term physical benefits and referred to mobilization as treatment, whereas patients had a short-term, situational and personal view of mobilization as an overwhelming activity. Furthermore, we found that awake patients were able to express their feelings and concerns and thereby negotiate mobilization during nurse-patient interactions. Finally, we showed how hope was induced through mobilization by involving patients’ everyday lives. The findings were based on patients’ and nurses’ experiences combined with observations of nurse-patient interaction in the ICU. The complexity of nurse-patient interactions was demonstrated, and our findings support the eCASH philosophy that...

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highlights the valuable role of bedside nurses as pivotal to patient comfort and recovery (Vincent et al., 2016). Furthermore, our paper contributes to knowledge regarding ICU mobilization as an instigator of hope in addition to its physical benefits.

A recent study indicated that there is only a minor risk of adverse events when mobilizing mechanically ventilated patients (Nydahl et al., 2017). However, we found that patients’ hesitation towards mobilization could, understandably, be caused by fear, loss of control and insecurity. The risk of the accidental disconnection of lifesaving equipment might be small, but for the individual patient, the risk may become an existential concern. This is supported by a meta-synthesis of patient experience in the ICU, emphasizing that existence itself is at stake when the patient is critically ill (Egerod et al., 2015). According to Wassenaar et al. (2015), feeling safe is an important aspect for ICU patients, especially during minimal sedation. Their study showed how nurses formed a bond of trust with the patient, which was similar to the findings in our study that stressed the importance of mutual trust when negotiating mobilization.

Our study found that nurses and patients had diverging perspectives on mobilization that could cause tension in nurse-patient interactions. Delmar (2012) cautions nurses to be aware of the asymmetrical relationship between nurses and patients. The mechanically ventilated ICU patients are indeed the weakest, as they are unable to speak and move voluntarily because of their dysfunctional bodies. The constrain of the technology may further increase their dependence on nurses. Corresponding to our findings, Sottile et al. (2015) showed that patients perceive physical activity in the ICU as important but also as associated with difficulty, exertion and discomfort. According to Delmar (2012), nurses have a moral responsibility to exercise their authority in nurse-patient interactions in the patient’s best interests and in a way that involves and expands the patient’s possibilities. As such,
nursing care must find a balance between authority, encouragement and overprotection. Our study illustrated the challenge of balancing a caring approach and negotiated mobilization. Forcing mobilization could be seen as an act of power that probably promotes recovery, whereas overprotection might lead to inactivity as a result of negligence.

Our findings showed that mobilization followed a dynamic process of nurse-patient negotiation, where patients were able to express their immediate concerns. Patients’ ability to negotiate is a way of exerting agency (Laerkner et al., 2017). Nurses stressed the importance of involving the patient in the process as a way of tailoring mobilization to the individual patient’s needs. In accordance with the principles of evidence-based nursing, the nurses tried to balance their knowledge of the best evidence with patient preferences. In the negotiation process, both nurses and patients questioned the patient’s ability to make adequate decisions about mobilization due to the severity of the patients’ illness with a median Apache II score of 24 (Table 4). According to Mol (2008), patients should be given the option to consider the relevant arguments to be able to make decisions, and she questioned if this is possible in severe critical illness (Mol, 2008, p.80). It appears that awake and aware mechanically ventilated patients present new ethical challenges for ICU nurses (Bull & Sorlie, 2016). Bull and Sorlie (2016) offered the example of a patient who refused physical exercise in the ICU. This forced the nurses to choose between following the patient’s wishes or act the way they sought was in the best interest of the patient. Our findings indicated a similar tension concerning patients’ ability to make conscious decisions about mobilization. On the one hand, the patient is assessed awake and able to communicate preferences. On the other hand, the patient might experience episodes of being delirious, confused or semi-conscious as a result of serious illness and medications. These fluctuations in consciousness are not necessary captured by RASS assessment twice daily. To unfold the ethical challenge of
patients’ decision-making capacity, we draw on Turner’s (1967) work on liminality, which describes an ambiguous, inter-structural state of transition between relatively stable conditions that are culturally recognized. According to Turner (1967), liminality refers to the anthropological term describing ambiguity during ritual transformation from one status to another, e.g., boy to manhood. Turner has used the term metaphorically as a condition of uncertainty and paradox, a state “betwixt and between” categories, being neither here nor there and yet both (Turner, 1967, p.97-99). From this perspective, we propose that the awake, mechanically ventilated patients are in an ambiguous state of liminality where they are perceived as neither fully rational nor irrational. They appear calm, alert and able to express their preferences, yet they might be mentally affected by critical illness, medications, an unfamiliar environment, fear and uncertainty. The mental state of seriously ill ICU patients often fluctuates on a daily basis and throughout their ICU stay, even in those patients who may appear to be alert (Tonelli & Misak, 2010). This may increase the challenge of nurse-patient negotiation.

Our findings showed that hope for the future could be induced through mobilization. A difference in temporality was revealed in the nurse-patient interactions, as nurses seemed attuned towards the long-term benefits of mobilization, whereas patients had a short-term, situational and personal perspective. To meet the patients’ needs in both the short and long-term was challenging for the nurses. Our study demonstrated how the nurses integrated the patients’ yearning towards daily life at home with their need for ICU mobilization by navigating and creating a coherent narrative that encompassed both perspectives. Nurses acts to induce hope through mobilization could be viewed from the perspective of temporality and by applying the concept of therapeutic emplotment, where health professionals shape therapeutic events into a coherent story organized by a plot (C.
Mattingly, 1994). According to Mattingly, health professionals can create a therapeutic plot that enables the patient to view therapy as meaningful and important. Hope involves the practice of creating lives worth living even during suffering (Cheryl Mattingly, 2010). Our findings showed how nurses incorporated temporality in a process towards reaching the future everyday life of the patient. This corresponds with Tropea (2012), who stated that therapeutic emplotment could be applied in nurse-patient interactions to foster hope and the desire for therapy.

Another perspective on inducing hope by mobilization can be found in Galvin and Todres’ theoretical framework of caring and well-being (Galvin & Todres, 2013). The temporal aspect of their dwelling-mobility approach describes a dialectic movement between a temporal being in the present (dwelling) and an orientation towards future possibilities (mobility). This intertwining of stillness and motion corresponds to our findings, where nurses acted in the interface between the unique and the shared, between the individual critically ill patient’s need for rest and a shared knowledge of the benefits of mobilization. Furthermore, we showed that mobilization does more than encourage physical activity. Mobilization has a psychological effect in giving patients faith in recovery.

The evidence supporting early mobilization of mechanically ventilated patients in the ICU remains insufficient (Devlin et al., 2018; Doiron, Hoffmann, & Beller, 2018). There are still unresolved issues regarding how best to tailor mobilization efforts to the individual patient and how to assess long-term outcomes. A recent study by Brock and colleagues (2018) showed that mechanically ventilated patients are immobile or transferred passively on most days of mechanical ventilation even in an ICU where mobilization is well-established. In our study patients were severely ill and yet mobilized from the first days of mechanical ventilation by nurses. Nurses are part of the team involved in mobilization in the
ICU. Our findings showed that nurses often had the sole responsibility for mobilizing the patient when other healthcare providers were absent. As such, nurses who are present at the bedside 24 hours a day have a key role in continuously maintaining mobilization. Most patients were mobilized passively with a mechanical bed lift during times of observation (Table 2). This corresponds to the study by Brock et al. (2018) where nurses provided more passive mobilization than physiotherapists. Other studies have questioned the role of nurses in relation to mobilization and rehabilitation, compared to that of physiotherapists, in ensuring physical activity in the ICU (Garzon-Serrano et al., 2011; Pellatt, 2003). These studies suggest that nurses might not view mobilization as their responsibility, or that nurses have other priorities. Based on the findings in our study, we wish to challenge this view by arguing that nurses might have a different agenda than other health professionals because they act within a caring logic (Mol, 2008). A logic of care means that nurses strive to comfort and care for the individual patient. Within this caring perspective, nurses navigate and act with moral responsibility and clinical judgment in nurse-patient interactions to balance care and translate medical knowledge to the particular situation while also being attentive to aspects important to the individual patient. In this way, mobilization becomes a complex achievement carried out with respect and in collaboration between the nurse and patient on ever-changing terms that depend on the physical and mental condition of the patient.

Limitations
Cultural aspects must be considered, as contextual characteristics differ among countries. It is known that there is a difference between Nordic and non-Nordic European countries in terms of sedation strategies, nurse/patient ratios, the use of restraint and inter-professional collaboration (Egerod, Albarran, Ring, & Blackwood, 2013). This may reduce the transferability of our study to non-Nordic countries.
The methodological opportunities and limitations of conducting a study in a familiar ICU must be mentioned. Knowing the context may enhance access and the willingness of participants to share experiences, but could also decrease broadness of perspectives and add blind spots in the data generation and analysis (Tjørnhøj-Thomsen & Ploug Hansen, 2017). The study only focused on nurse-patient interactions in relation to mobilization in the ICU. The interaction presented here would perhaps be different if other health professionals or relatives were involved. Furthermore, the study patients may have been subject to more daily mobilization than was recorded as observation sessions only lasted a few hours at a time. Still, the findings add to the body of knowledge of caring for mechanically ventilated patients in a context of minimal or no sedation and could be of interest to nurses in other ICUs and settings where patient mobilization is part of the nurses’ mandate.

**Conclusion**
Exploring nurse-patient interactions in relation to the mobilization of awake, mechanically ventilated patients presented new challenges and opportunities. We showed that patients and nurses had divergent perspectives on mobilization. Nurses had a long-term perspective and regarded mobilization as part of ICU treatment, whereas patients had a short-term perspective focused on their present condition and the experience of being overwhelmed by the activity. By exploring nurse-patient interactions, we highlighted mobilization as a negotiated, complex and meaningful achievement carried out through a caring logic by nurses in collaboration with the patients. Furthermore, to bridge the short-and long-term perspective for critically ill patients, nurses may use their clinical experience and professional knowledge to create a
coherent story and induce hope through mobilization. Awake, critically ill, mechanically ventilated patients could be seen as being in a liminal state between confusion and awareness, which challenges nurses’ attempts to act in the patient’s best interest.

**Relevance to clinical practice**
This paper is relevant for nurses in clinical practice, as it highlights important aspects of nurse-patient interactions in relation to the mobilization of awake, critically ill, mechanically ventilated patients. We have shown that mobilization is not merely a question of patients’ physical condition. Mobilization requires a caring approach, complex clinical judgment and the patient’s involvement. Furthermore, the study illuminates the valuable role of nurses in achieving mobilization in the ICU when other health professionals are absent. An increased focus on minimal sedation may enable early mobilization during mechanical ventilation. However, further research exploring health professionals’ actions to support mobilization in the ICU is needed.

**References**

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Table 1 Richmond Agitation and Sedation Scale (RASS)

<table>
<thead>
<tr>
<th>SCORE</th>
<th>RASS Description</th>
<th>Stimulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>+4</td>
<td>Combative, violent, immediate danger to staff</td>
<td></td>
</tr>
<tr>
<td>+3</td>
<td>Pulls to remove tubes or catheters; aggressive</td>
<td></td>
</tr>
<tr>
<td>+2</td>
<td>Frequent non-purposeful movement, fights ventilator</td>
<td></td>
</tr>
<tr>
<td>+1</td>
<td>Anxious, apprehensive, movements not aggressive</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Alert and calm. Spontaneously pays attention to caregiver</td>
<td></td>
</tr>
<tr>
<td>-1</td>
<td>Not fully alert but has sustained awakening to voice</td>
<td>Verbal Stimulation</td>
</tr>
<tr>
<td></td>
<td>(eye opening &amp; contact) &gt;10 seconds</td>
<td></td>
</tr>
<tr>
<td>-2</td>
<td>Briefly awakens to voice</td>
<td>Physical Stimulation</td>
</tr>
<tr>
<td></td>
<td>(eye openings &amp; contact) &lt;10 seconds</td>
<td></td>
</tr>
<tr>
<td>-3</td>
<td>Movement or eye opening. No eye contact</td>
<td></td>
</tr>
<tr>
<td>-4</td>
<td>No response to voice, but movement or eye opening to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>physical stimulation</td>
<td></td>
</tr>
<tr>
<td>-5</td>
<td>No response to voice or physical stimulation</td>
<td></td>
</tr>
</tbody>
</table>

(Ely, 2014; Sessler et al., 2002)
### Table 2 Mobilization types during observations

<table>
<thead>
<tr>
<th>Mobilization type</th>
<th>Number of mobilizations recorded during 58 observation days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking from bed to chair</td>
<td>11</td>
</tr>
<tr>
<td>Standing</td>
<td>2</td>
</tr>
<tr>
<td>Sitting on side of bed</td>
<td>4</td>
</tr>
<tr>
<td>Transferred from bed to chair by mechanical bed lift</td>
<td>37</td>
</tr>
<tr>
<td>No actual mobilization occurred*</td>
<td>4</td>
</tr>
</tbody>
</table>

*Nurse-patient interaction with mobilization during observation. Actual mobilization postponed due to pain, deterioration or patient refusal.

### Table 3 Participant characteristics (Nurses)

<table>
<thead>
<tr>
<th></th>
<th>Participant observation (n= 44)</th>
<th>Interview (n=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male/Female</td>
<td>3/41</td>
<td>2/14</td>
</tr>
<tr>
<td>Unit A/B</td>
<td>25/19</td>
<td>8/8</td>
</tr>
<tr>
<td>Range of age in years</td>
<td>24 - 58</td>
<td>27 - 49</td>
</tr>
<tr>
<td>Range of ICU experience in years</td>
<td>0.5 -21</td>
<td></td>
</tr>
</tbody>
</table>
Table 4 Participant characteristics (Patients)

<table>
<thead>
<tr>
<th></th>
<th>Participant observation (n= 25)</th>
<th>Interview (n=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male/Female</td>
<td>17/8</td>
<td>8/5</td>
</tr>
<tr>
<td>Medical/Surgical</td>
<td>13/12</td>
<td>5/8</td>
</tr>
<tr>
<td>Unit A/B</td>
<td>13/12</td>
<td>7/6</td>
</tr>
<tr>
<td>Median age in years (range)</td>
<td>65 (37 – 80)</td>
<td>65 (50 – 86)</td>
</tr>
<tr>
<td>Median Apache II score* (range)</td>
<td>24 (12 – 46)</td>
<td>24 (18 - 45)</td>
</tr>
<tr>
<td>Oral tracheal tube</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>Tracheostomy</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Median days on MV** (range)</td>
<td>10 (3 – 70)</td>
<td></td>
</tr>
<tr>
<td>RASS assessment before observation</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Mean % of days on MV with RASS score 0*** (range)</td>
<td>77 % (57 - 97 %)</td>
<td></td>
</tr>
</tbody>
</table>

Apache II score* = Acute Physiology and Chronic Health Evaluation II (0 – 71). The calculation is based on 12 physiological measurements during the first 24 hours in the ICU. Higher scores correspond to more severe disease and higher risk of death (Knaus, Draper, Wagner, & Zimmerman, 1985).

MV** = Mechanical ventilation

RASS score 0*** = Assessed twice a day by bed-side nurses (morning and evening)
Figure 1. Mr Mortensen’s handwritten note to the nurse (translated from Danish)

```
Wifi ke opp
Det var os biffen
Mort.
Ny huvud signi tade
Det er det hejsevery
```

DON’T WANT TO GET UP ON THIS
IT WAS ALSO VERY HARD
I FELT SO BAD LAST [TIME]
IT IS THIS HOIST THING