“Nurses views about their role in patients’ perception of safety in the Intensive Care Unit: a qualitative study”

- Titel: “Nurses views about their role in patients’ perception of safety in the Intensive Care Unit: a qualitative study”
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- Studentnummer: 3684938
- Cursus afstudeeronderzoek
- Status van het werkstuk: definitieve versie
- Datum: 4 juli 2013
- Aantal woorden tekst: 3499
- Aantal woorden samenvatting: 299
- Aantal woorden abstract: 297
- Beoogd tijdschrift: International Journal of Nursing Studies (IJNS)
- Gehanteerde referentiestijl: Vancouver
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SAMENVATTING

Titel: “Nurses views about their role in patients’ perception of safety in the Intensive Care Unit: a qualitative study”

Inleiding: Veilig voelen is een belangrijke behoefte voor intensive care (IC) patiënten en van vitaal belang tijdens hun herstel. Bovendien kan onveilig voelen resulteren in negatieve gevolgen, zoals traumatische ervaringen en depressiviteit. Ondanks het feit dat IC verpleegkundigen een grote rol hebben in ervaren veiligheid, is het niet bekend of ze zich bewust zijn van deze rol.
Doel: Beschrijven en begrijpen van de opvatting van IC verpleegkundigen over hun rol in ervaren veiligheid van IC patiënten in termen van de betekenis die ze daaraan geven.
Onderzoeksvraag: Wat is de opvatting van IC verpleegkundigen over hun rol in ervaren veiligheid van IC patiënten?
Methode: Er is gebruik gemaakt van een kwalitatief design volgens de grounded theory benadering. Maximale variatie steekproeftrekking en diepte interviews werden uitgevoerd. Data collectie en analyse, inclusief open en axiaal coderen, werden uitgevoerd tijdens een iteratief proces.
Resultaten: In totaal werden dertien IC verpleegkundigen geïnterviewd. De verpleegkundigen verklaarden dat ze niet bewust waren van de ervaren veiligheid van IC patiënten. Volgens de IC verpleegkundigen was het centrale thema van hun rol het opbouwen van een vertrouwensband om goede en comfortabele zorg te bieden. Dit thema is ontstaan uit vier hoofdcategorieën: [1] uitleggen en informeren van IC patiënten; [2] gebruiken van familieband; [3] houding en deskundigheid van IC verpleegkundigen; [4] fysieke veiligheid creëren.
Conclusie: De verpleegkundigen gaven aan niet bewust te zijn van de ervaren veiligheid van IC patiënten, maar dat ze hun rol uitvoeren om goede en comfortabele zorg te bieden door het opbouwen van een vertrouwensband. Volgens de verpleegkundigen is een vertrouwensband essentieel voor IC patiënten om zich veilig te voelen.
Aanbevelingen: Tijdens de scholing en in de klinische praktijk van IC verpleegkundigen aandacht hebben voor het belang van veilig voelen van IC patiënten, om te garanderen dat IC verpleegkundigen bewust worden van deze ervaren veiligheid.

Trefwoorden: 'verpleegkundige', 'rol', 'veilig voelen', 'intensive care', 'kwalitatief onderzoek'.

ABSTRACT

Title: "Nurses views about their role in patients' perception of safety in the Intensive Care Unit: a qualitative study."

Introduction: Feeling safe is a very important need for intensive care (IC) patients and vital during their recovery. Moreover, feeling unsafe can result in adverse effects including traumatic experiences and feeling depressed. Nursing care has a major role in patients' perception of safety. However, it is unknown whether nurses are aware of their role.
Aim: To describe and understand IC nurses views regarding their role in patients' perception of safety in ICU, in terms of the meaning they bring to it.
Research question: What are IC nurses' views about their role in patients' perception of safety in ICU?
Method: This study used a qualitative design following grounded theory approach. Maximum variation sampling and in-depth interviews were conducted. Data collection and analysis, including open and axial coding, were executed during an iterative process.
Results: A total of thirteen IC nurses were interviewed. The nurses stated that they were not aware of IC patients' perception of feeling safe. According to the nurses' views, the central theme of their role was building a bond of trust to provide good and comfortable care. This theme arose from four main categories: [1] explaining and informing IC patients; [2] using the patients' family bond; [3] attitude and expertise of the IC nurse; and [4] creating physical safety.
Conclusion: The nurses stated that they were not aware of IC patients' perception of feeling safe, but that they strived to provide good and comfortable care, by building a bond of trust with their patients. According to the nurses, a bond of trust is essential for IC patients to feel safe.
Recommendations: The importance of feeling safe in IC patients needs to be addressed within nursing education and clinical practice, in order to ensure that IC nurses become aware of IC patients' perception of safety.

Keywords: 'nurse', 'role', 'feeling safe', 'intensive care unit', 'qualitative research'.

INTRODUCTION AND RATIONALE

Patient safety is a crucial aspect in improving quality of health care and has been defined as 'freedom from accidental injury'.(1) Unfortunately, adverse events occur frequently (with an incidence of 8.0% in 2008 in the Netherlands) and are negatively influencing patients' outcome.(1, 2)

Risk for adverse events increases when health care becomes more complex.(1, 3, 4) Treatment in an intensive care unit (ICU) means complex care, due to the combination of its invasive nature and the use of extended technical equipment. As a result, patients admitted to an ICU are more prone to experience adverse events compared to patients admitted to general units.(5-7) Therefore, focus on patient safety is vital during ICU admission.

Regardless of the disease, intensive care (IC) patients are almost entirely dependent on IC nurses during their treatment, monitoring and care.(8) The use of extended and invasive techniques (such as endotracheal intubation and venous or arterial catheters) induce abnormal communication and risk for complications when patients move independently(8), resulting in difficulties in interaction and loss of self-control.(9, 10) Because IC patients are frequently unable to actively influence these problems,(9) it is essential that they can fully rely on their nurses to provide safe care.(8, 11) Particularly since IC nurses are at the bedside around the clock and continually oversee, coordinate and provide patient care.(12, 13)

McKinley et al(14) found that positive experiences of IC patients were directly associated with feeling safe. Based on IC patients' responses, Russell(15) described feeling safe as a state in which a patient experiences an absence of risk of physical or emotional injury. Therefore feeling safe can be seen as the psychosocial component of patient safety. Feeling safe is a very important need for IC patients(16) and vital while recovering from critical illness.(9, 15) Moreover, feeling unsafe can result in adverse effects such as increased distress,(10) traumatic experiences, having nightmares, and feeling depressed.(15)

Several high quality assessed qualitative studies(17) regarding IC patients' experiences and needs, have shown that nursing care is important in promoting patients' perception of safety in ICU.(10, 14, 15, 18-24) Besides nursing care other promoting factors were found, including relatives, technological support and patients' issues categorised into psychosocial needs and loss of control.(10, 14, 15, 19-25) Moreover, different studies reported that nurses can increase patients' perception of safety,(10) stimulate their recovery and prevent distress, by taking into account these promoting factors during IC patients' care.(15) Although it is shown that nurses have a major role in IC patients' perception of safety,(10, 14, 15, 18-25) no studies were found providing insight in IC nurses' views about this role.

To perform their role, nurses need a high level of competence.(26) In this role competence reflects awareness, knowledge and personal attitude.(26-28) Unfortunately, it is unknown whether IC nurses are aware of and know which factors are promoting IC patients' perception of safety, in order to adopt the adequate attitude to meet their patients' safety needs.(9, 10, 14, 18)

PROBLEM STATEMENT

By taking into account the factors that promote patients' perception of safety, IC nurses can stimulate their patients' recovery and prevent the adverse effects of feeling unsafe during ICU admission. Hence, it is important that IC nurses take on a leading role in increasing patients' perception of safety in the ICU.

Despite the fact that IC nurses have a major role in IC patients' perception of safety, it is yet unknown whether nurses are aware of this role. Therefore it is necessary to explore IC nurses views regarding their role in patients' perception of safety in ICU.

AIM

To describe and understand IC nurses' views regarding their role in patients' perception of safety in ICU, in terms of the meaning they bring to it.

The overall objective: these findings are expected to be used in the future to develop interventions to influence IC nurses' views regarding their role in a positive manner, to increase patients' perception of safety in ICU.

RESEARCH QUESTION

What are IC nurses' views about their role in patients' perception of safety in ICU?

METHODS

Design

A qualitative design was used following the grounded theory (GT) approach, to describe and understand IC nurses' views regarding their role in IC patients' perception of safety. This design was chosen, because *IC nurses' views* about their role in IC patients' perception of safety is a subjective phenomenon, psychosocial in nature and not been previously explored.(26, 27)

A GT approach aims to generate theoretical precepts grounded in the data.(29, 30) Since developing a theory was not feasible due to the context of the graduation target of the researcher (AW), the findings are presented as a conceptual description of themes following Corbin and Strauss.(29)

Setting

Participants were recruited from the ICU nursing staff of the Radboud University Nijmegen Medical Centre, a university hospital in the Netherlands. This hospital includes a level-3 ICU equipped for surgical, trauma, medical, neurological, neurosurgical, and cardiothoracic adult patients, divided over five units. These units include their own specialities, eight IC beds and approximately 30 IC nurses.

Inclusion criteria

In order to be eligible for participation, a participant had to meet all of the following criteria: registered IC nurse, working in the ICU of the Radboud University Nijmegen Medical Centre and proficiency of the Dutch language.

Sampling

The participants were recruited following maximum variation sampling. This is a type of purposive sampling, with a broad variety in types of participants, to gain insights into the range and complexity of the phenomenon.(30, 31) Sampling was performed by selecting IC nurses meeting the inclusion criteria, who differed in gender, age, work experience as registered IC nurse, and were employed in different units.

Selected participants were informed about the study by e-mail. Approximately one week later they were called about their interest in participation. During this call they also could ask questions. After agreement to participate the interview was scheduled.

The used guiding principle in sampling was data saturation, meaning sampling to the point at which no new information was obtained regarding conceptual themes.(29, 31)

Data collection procedures

In-depth interviews were performed to examine the participants' individual perceptions.(31) Between January and April 2013, a total of fifteen IC nurses were approached for an interview of approximately one hour. Two selected nurses refused to participate. Open-ended questions were guided by a topic list with broad question areas. The topics were based on published literature(10, 14, 15, 18-25, 27) and experts' knowledge (AW, LS). See appendix 1 for the topic list and first question of the interview. Prior to the data collection a practice interview was conducted to check the topic list. During the study, topics and hence questions changed based on emerging concepts from previously conducted interviews.(29)

The interviews took place during working hours, in a room in which privacy was ensured. The participants knew that the interviewer (AW) was also an IC nurse, but working in another hospital. A voice-recorder was used to record the interviews. In addition, the interviewer made notes using a contact summary sheet to remember observations of non-verbal behaviour.

Trustworthiness

During this study, a variety of measures were taken to guard the trustworthiness of the data. *Credibility* was enhanced by using member check; during each interview the researcher (AW) summarized the participant's answers, to check accuracy and interpretation. All recorded interviews were transcribed.(30) The use of purposive sampling and a detailed description of the phenomenon and its context enhanced the *transferability.(29) Confirmability* was enhanced by training the interviewer (AW) and peer debriefing consisting of critical discussion (AW, LS) about the study methods.(30) Furthermore, researchers' triangulation was carried out by coding two interviews by two researchers (AW, LS), and discussion about the remaining coding. In addition, the qualitative data analysis computer software package NVivo was used.(32) *Dependability* was enhanced by describing an audit trail through careful and systematic documentation of the methodology.(29)

Data analysis

Data collection and analysis were carried out during an iterative process.

During coding ‘awareness’, ‘knowledge’ and ‘attitude’(26-28) were used as sensitizing concepts to guide interpretation of data.(29) These concepts, initially described in general, were given content during data analysis.(31) After conducting the interviews, they were transcribed and read carefully. During open coding meaningful segments were labelled and compared. This resulted in a comprehensive list of concepts, to promote thematisation and development of a conceptual framework.(31) The next step was axial coding to relate the concepts to each other.(29) During this process the concepts were compared and organized into main and subcategories, and interpreted afterwards.(31)

After eleven interviews data saturation was reached as no new concepts emerged. Two more interviews were conducted to secure the categories.

Ethical review

This study was approved by the Medical research ethics committee (MREC) Arnhem-Nijmegen region (No.2013/002). Handling of the data complied with the Dutch Personal Data Protection Act (WBP). Each participant provided informed consent prior to the interview.

RESULTS

A total of thirteen interviews regarding IC nurses' views about their role in patients' perception of safety in ICU were analysed. The participants' characteristics are listed in Table 1.

Insert table 1 here.

The nurses stated that they were not aware of IC patients' perception of safety, but that they strived to provide good and comfortable care. They mentioned that the interview was an eye-opener regarding IC patients' perception of safety, and not to know if patients feel safe in ICU. Instead of asking patients about feeling safe, the nurses assumed that the patients did. In addition, the nurses indicated to treat their patients as they would like to be treated themselves. See Table 2 for quotes.

Insert table 2 here.

Data analysis showed that the nurses' views about their role were affected by their own experiences, norms and values, their knowledge, and the fact that they were unaware of their role in IC patients' perception of safety. In addition, the nurses felt that IC patients' perception of safety was not a specific topic within their ICU department nor within their education.

According to the nurses' views, the central theme of their role was <u>building a bond of trust with IC patients to provide good and comfortable care</u>. This theme arose from four main categories [ ] and eight *'subcategories'*:

[1] Explaining and informing IC patients: '*communication'*, '*personal approach'* and '*giving patient control'*;

[2] Using the patients' family bond: '*recognition'*;

[3] Attitude and expertise of the IC nurse: '*knowledge and experience', 'motivation'* and *'structure and uniformity'*;

[4] Creating physical safety: '*equipment'*. See table 3 for categories and quotes.

Insert table 3 here.

Building a bond of trust with ICU patients, to provide good and comfortable care

According to the nurses feeling safe depends on whether patients are having trust or not. And when patients trust their nurses, they are able to surrender and to have confidence in receiving good care; like knowing you are in safe hands. This bond of trust is perceived to be important for patients to openly communicate with nurses and to give their opinion. Experiencing trust was described by the nurses as knowing why you are in the ICU and what is going to happen.

[1] Explaining and informing IC patients

The nurses stated that providing explanation and information is necessary so that IC patients know what to expect, which is vital in building a bond of trust. They felt that patients need to be informed to prevent them from being frightened by not knowing what is happening. Nurses found it important to take time to provide clear explanation at any time, despite the level of sedation of patients, and if necessary to ensure repetition. They stated that explanation should contain an introduction of the nurse, orientation in time, place and event, and information about what is going to happen. They also stated that *'communication'* with IC patients should be open and honest, and that nurses should meet their agreements with IC patients. The nurses felt that communication with IC patients can be difficult and time-consuming, for example due to intubation, sedation or delirium.

According to the nurses explanation combined with a *'personal approach'* provides IC patients reassurance and trust. They described a personal approach as meeting the patients' individual needs by getting to know them first and taking into account their background.

Nurses stated they *'give IC patients control'* by providing explanation, involving them in their care and conversations, as well as by dialogue and checking whether the patient understood their explanation. In addition, they indicated the importance of explaining to patients how they could reach the nurse, including explanation about the bell, alarms and monitoring. According to the nurses having control would contribute to IC patients' trust.

[2] Using the patients' family bond

Making use of the patients' family bond was another element the nurses believed to be important in gaining IC patients' trust. The nurses explained that a familiar face creates *'recognition'* and trust, and also that family members often know what patients need, want or mean, making them feel more at ease. Family can visit their beloved ones 24 hours a day. Nurses felt they need to coordinate these visits regarding the department rules and their patients' needs. They also indicated the importance of providing family members explanation

and guidance during visits, because family members transmit their knowledge and feelings to the IC patients.

[3] Attitude and expertise of the IC nurse

The nurses noted that to possess and show expertise as an IC nurse is important for patients in getting trust. They described expertise as *'knowledge about and having experience with'* what nurses are doing regarding the IC patients' illnesses and treatments. The nurses explained they show their expertise by acting vigorous, confident and appropriate as well as by providing clear explanation while caring for IC patients. The nurses mentioned the importance of *'uniform and structured'* care and information, in order to provide the patient with knowledge about what to expect. And also that nurses should *'be motivated'* and calmly approach IC patients, because patients can feel and see what nurses convey.

[4] Creating physical safety

Nurses felt that creating physical safety is necessary in building a bond of trust with IC patients. They try to prevent patients from experiencing fear of falling by using bed-rails and pillows. The nurses indicated that a clean and neat environment can contribute to patients' physical safety and trust in good care. Nurses felt that the opportunities of the extensive technical *'equipment'* and monitor surveillance in ICU create physical safety and trust. They also mentioned the importance of explanation about monitoring and alarms, especially to patients who are awake.

DISCUSSION

The nurses stated that they were not aware of IC patients' perception safety, but that they strived to provide good and comfortable care. According to the nurses' views, the central theme of their role was building a bond of trust with IC patients. This theme arose from four main categories: [1] explaining and informing IC patients; [2] using the patients' family bond; [3] attitude and expertise of the IC nurse; and [4] creating physical safety.

Although the nurses stated they focus on building a bond of trust with IC patients rather than on IC patients' perception of safety, their views about their role contain vital elements that were also mentioned by IC patients themselves in previous studies.(10, 14, 15, 18-25) In these studies IC patients described *nursing care* including communication and information(14, 15, 19, 22, 24) and attitude and expertise,(15, 18, 22) *relatives*,(14, 21, 22, 25) *patients' issues* including psychosocial needs,(10) and loss of control(15) and *technological support*(15, 19, 20, 23, 24) as promoting their perception of safety. Also, trusting nurses was one of the elements IC patients mentioned as their psychosocial needs in the study of Hupcey (2001). This shows that despite the fact that the nurses were not aware of IC patients' perception of safety, the main categories of nurses' views about their role are comparable to what IC patients described as making them feel safe.

Recent guidelines stimulate minimization of sedation, making patients more responsive and able to communicate during ICU admission.(33, 34) Because of the decreased level of sedation, feeling safe is becoming increasingly important. We therefore consider it is necessary for nurses to be aware of their role in IC patients' perception of safety. By this awareness they can stimulate IC patients' recovery as well as prevent the distress and adverse effects of feeling unsafe during ICU admission,(16) ultimately leading to a higher quality of care. In addition, patient centred care (PCC) is also shown to be important to quality of healthcare.(35, 36) In PCC, the patients' needs including their perspectives, beliefs and values are central.(36, 37) Despite the importance of PCC, our study indicated that nurses do not know if patients feel safe in ICU; instead of asking patients about feeling safe, the nurses assumed that patients did. They also indicated to treat their patients as they would like to be treated themselves. This shows that they were thinking for their patients instead of with their patients. In contrast, the nurses mentioned the importance of meeting IC patients' individual needs by getting to know them first and taking into account their background. Although nurses seem to be aware of the importance of PCC, their description of their attitude does not correspond to PCC.

In our study nurses stated that communication with IC patients can be difficult and time-consuming, for example due to intubation or sedation. Nurses mentioned that family members

often know what patients need, want or mean, making them feel more at ease and also that a familiar face gives recognition and trust to the patient. Thus, making use of patients' family bond is important and therefore an area that nurses should pay attention to regarding the care for IC patients and their perception of safety. Other studies confirm that family is important in order to meet IC patients' needs.(10, 25, 38)

Unfortunately, our findings show that feeling safe of IC patients was not a specific topic within the nurses' ICU department nor within their education. This subject should be addressed, because studies have indicated that education is important in developing the knowledge and attitude that promote patient safety.(26, 27, 39) Moreover, awareness, knowledge and attitude reflect the competencies IC nurses should meet to perform their role as a nurse.(26-28) Therefore it is necessary to address feeling safe of IC patients within IC nurses' education and clinical practice.

Strengths and limitations

In this study we used a strict methodology for data collection, analysis and reporting.(40) Furthermore, the broad variety of measures that were taken during this study increased its trustworthiness.(29, 30) One author (AW) is a registered IC nurse having familiarity with and understanding of the subject of study, which enhanced the interpretative process. Objectivity was maintained, because she worked in another hospital. This made it possible to describe IC nurses' views about their role in IC patients' perception of safety, in terms of the meaning they bring to it. However, to interpret the results, some limitations should be considered.

First, we were unable to carry out theoretical sampling, due to the fact that there were no theoretical concepts found in the data to sample on.(29, 30) However, maximum variation sampling gave insight into the views of a diverse sample.(29) Despite this diversity, common patterns emerged from the data. Second, the recruitment was limited to IC nurses from one Dutch university hospital. This should be taken into account regarding generalizability of the results, because nurses' views might differ when working in ICUs in different hospitals or countries.

RECOMMENDATIONS

To develop a theory and generalise the results, additional research in other contexts is needed. For example, IC nurses working in other hospitals or countries might have different views about their role in IC patients' perception of safety. In future research the influencing factors of IC nurses views about their role should be explored further. This is important to tailor and develop

interventions aimed at influencing nurses' views about their role in a positive manner, to increase IC patients' perception of safety. In addition, the importance of feeling safe in IC patients should be addressed within nursing education and clinical practice, in order to ensure that nurses become aware of IC patients' perception of safety. In this, attention must be paid to PCC including consultation with IC patients or their family in case the patient is unable to communicate. So that IC nurses will act based on patients' perspectives and needs, rather than based on their own assumptions.

CONCLUSION

This study is the first providing a description of IC nurses' views regarding their role in patients' perception of safety in the ICU. The nurses stated that they were not aware of IC patients' perception of safety, but that they strived to provide good and comfortable care, by building a bond of trust with their patients. The nurses felt that in order to build a bond of trust, they need to provide explanation and information to IC patients, make use of the patients' family bond, make sure they possess and show expertise as an IC nurse and also create physical safety for their patients. According to the nurses, a bond of trust is essential for patients to feel safe in the ICU.

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Table 1: Participants' characteristics.

Gender (N)	Male: 4 Female: 9
Age (years)	Mean: 38 (range 25 – 57)
Education level (N)	Level 4 (MBO): 5 Level 5 (HBO): 7 University: 1
Work experience as registered IC nurse (years)	Mean: 9.5 (range 0.25 - 30)
ICU unit (N)	ICC1A (surgical, trauma, medical): 3 ICC1B (surgical, trauma, medical): 4 ICC1C (neurological, neurosurgical): 3 ICC3A/B (cardiothoracic): 3

Table 2: Quotes in which IC nurses stated that they were not aware of their role in patients' perception of safety in ICU.

➢ "I never really ask the patient "do you feel safe here" or something. () You do not address that, because you think that will be no issue in the ICU because from your point of view nothing is wrong, as it is totally safe here." *(1)*
➢ "I do not know if patients feel safe." *(8)*
➢ "Lots of things happen automatically. You are not aware of doing it." *(5)*
➢ "I do not think you're quite aware and explicitly doing it." *(10)*

Table 3: Themes, categories and quotes related to nurses views regarding their role in patients' perception of safety in ICU.

Theme	***Category***	***Subcategory***	***Representative quotes***
Building a bond of trust with IC patients, to provide good and comfortable care	[1] Explaining and informing IC patients	*Communication*	"Then you create a piece of trust by explaining what you do and how you do it." *(8)* "I think it is important () open communication () clearly discussing what you are doing, what is going on, that is giving the patient a very little uhh yeah trust." *(12)*
		Personal approach	"We often request photos of patients. Not so much for the patient, but also for us.() Because we do not know someone. Only hanging pictures changes the image you have of someone.() And yes, you should keep in mind that this woman had been very different before she came to us." *(3)*
		Giving patient control	"When family is visiting () I always say to the patient () I just explained to your wife how it went today () That you involve someone briefly in the conversation. () And then, then I think nevertheless they have the idea 'I get quite a bit of control over how it goes'." *(1)*
	[2] Using the patients' family bond	*Recognition*	"Family often knows what patients find comfortable, what makes them feel more at ease." *(8)* "Some ill people like it to have a familiar face next to them, to hear a familiar voice () Sometimes the family knows just a little better what someone wants to say." *(6)*
	[3] Attitude and expertise of the IC	*Knowledge and experience*	"You also need to show trust towards the patient. () How I show trust. Well at least that you know what you are doing

	nurse		and that you are well aware of the treatment plan and why things are done and what the history of the patient is." *(5)*
		Motivation	"I think it is very unfortunate when nurses do not appreciate their profession. () Because then you often do not have motivation. () A patient feels when you turning him if you do not really feel like it. () If that nurse is taking care for a patient, that patient might feel very unsafe." *(10)*
		Structure and uniformity	"It is very important that policy is unambiguous and that also things are discussed unambiguous uh with the patient. () To the patient it is very important that everything happens is uniform and not that one says something different than the other. () I think that is one of the most important things. () It gives, you see, it gives the patient very little trust, uhh, like do they know what they are doing here?" *(3)*
	[4] Creating physical safety	*Equipment*	"For example materialistic things like with turning that indeed you are doing the bed-rails up or making the bed go down, or that you make sure that always someone helps you turning the patient, so that the patient really is not afraid he will fall out of bed." *(1)*

(number between brackets) = participant number

Appendix 1: The topic list and first question.

First question: 'Can you tell me what you think is influencing the extent to which a patient is feeling safe in ICU?'
Topics: ➢ View about role in perceived safety of IC patients; ➢ Origination of this view; ➢ Place of feeling safe during proceedings as IC nurse; ➢ Meaning perceived safety of IC patients department; ➢ Meaning perceived safety of IC patients education; ➢ Opinion about importance of perceived safety of IC patients.