Critical care nurses’ experiences of nursing mothers in an ICU after complicated childbirth

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ABSTRACT
Background: Providing nursing care for a critically ill obstetric patient or a patient who has just become a mother after a complicated birth can be a challenging experience for critical care nurses (CCNs). These patients have special needs because of the significant alterations in their physiology and anatomy together with the need to consider such specifics as breastfeeding and mother-child bonding.

Aim: The aim with this study was to describe CCNs’ experience of nursing the new mother and her family after a complicated childbirth.

Method: The design of the study was qualitative. Data collection was carried out through focus group discussions with 13 CCNs in three focus groups during spring 2012. The data were subjected to qualitative content analysis.

Findings: The analysis resulted in the formulation of four categories: the mother and her vital functions are prioritized; not being responsible for the child and the father; an environment unsuited to the new family and collaboration with staff in neonatal and maternity delivery wards.

Conclusion and relevance to clinical practice: When nursing a mother after a complicated birth the CCNs give her and her vital signs high priority. The fathers of the children or partners of the mothers are expected to take on the responsibility of caring for the newborn child and of being the link with the neonatal ward. It is suggested that education about the needs of new families for nursing care would improve the situation and have clinical implications. Whether the intensive care unit is always the best place in which to provide care for mothers and new families is debatable.

Key words: Critical care nursing • Family care in critical care • Inductive content analysis • Parents • Qualitative research • Role of family in ICU

INTRODUCTION
Providing nursing care for a critically ill obstetric patient or a patient who has just become a mother after a complicated birth can be a challenging experience for critical care nurses (CCNs) (Campbell and Rudisill, 2006). Pregnant and postnatal women admitted to intensive care units (ICUs) have a number of additional needs compared to the non-pregnant population, based on the physiology of pregnancy, the presence of the foetus and the conditions unique to pregnancy (Pollock, 2006). These patients have special needs because of the significant alterations in their physiology and anatomy together with the need to consider such specifics as breastfeeding and mother-child bonding (Kynoch et al., 2010). To provide the best possible care for and satisfy the needs of critically ill mothers and their families in ICUs information is needed from the perspective of CCNs.

BACKGROUND
Hypertension in pregnancy is used as a term for conditions in pregnancy where hypertension is a major symptom, including gestational hypertension, pre-existing essential hypertension and pre-eclampsia incorporating eclampsia and haemolysis elevated liver enzymes and low platelets (HELLP) syndrome (Pollock, 2006). Conditions such as pre-eclampsia, infections, bleeding, HELLP syndrome, DIC syndrome, emboli, adult respiratory distress symptoms, pulmonary oedema, trauma and cardiovascular diseases are complications that may lead to the mother being cared for in an ICU or a postoperative unit (Maiolatesi, 2009). Emergency caesarean section is performed, for instance, in cases of prolonged labour, abnormal presentations including face or breech presentation, asphyxia, cephalopelvic disproportion, pre-eclampsia...
or placenta abruption. Pre-eclampsia and obstetric haemorrhage are the most common diagnoses requiring admission to an ICU; however, an obstetric patient may present to an ICU with any condition at any time (Pollock, 2006). Selo-Ojeme et al. (2005) conclude in their study, carried out in the UK, that black race, emergency caesarean delivery and primary postpartum haemorrhage are associated with an increased risk of obstetric admission to the ICU. Postpartum patients, according to Kilpatrick and Matthay (1992), are most commonly transferred to the ICU on the grounds of haemodynamic instability.

In a meta-ethnography, Elmir et al. (2010) studied women’s experiences of a traumatic birth, i.e. actual or threatened injury or death to the mother or her baby, or a traumatic experience resulting from an intervention during the process. The mode of birth or the way they are treated by health care personnel can have debilitating consequences making the mothers feel invisible or out of control, for example such consequences associated with poor psychological and emotional outcomes. The distress women experience following a traumatic birth is often not addressed by medical professionals or in the social context (Elmir et al., 2010).

After a complicated childbirth it has been shown that the most important thing for the mothers is to know about the baby, they worried about the father and needed to have someone to talk to (Engström and Lindberg, 2012). Separation of mother and child should be avoided if possible (Berg and Dahlberg, 1998). Campbell and Rudisill (2006) identified barriers that could have implications for the psychosocial adjustment of obstetric patients in an ICU, such as high levels of technology, lack of privacy, visiting restrictions and limitations on breastfeeding. According to Engström (2009), the care environment in the ICUs and the postoperative units can be described as high-tech with constant monitoring of the patient. This can cause the patient to think about the seriousness of their situation and their chances of survival. Alternatively, the high-tech environment can be perceived as a source of security, when it is recognized that advanced treatment is being carried out. When a birth does not progress as expected or when the woman finds herself with an acute and serious complication related to the actual delivery and needs care in an ICU, it also affects the father or partner, placing in him or her in an unplanned and overwhelming situation managing not only the newborn baby but also the partner’s critical situation. A literature review (Rahmqvist Linnarsson et al., 2010) shows that the significant others of critically ill or injured persons face a situation that can be overwhelming and emotionally challenging, resulting in their need to be heard and seen.

According to Vouzavali et al. (2011), CCNs need to be aware of and prepared for the nature of the situation as it affects their engagement with the critically ill patient, who in this case is both a critically ill woman and a mother. They also need to be clear that bonding and interpersonal relationships with patients develop, even with those who are unconscious, and that this may have an effect on them. To summarize, women who have become mothers after a complicated delivery have special needs and CCNs need the knowledge and skills involved in providing suitable nursing care (Campbell and Rudisill, 2006; Pollock, 2006; Kynoch et al., 2010) and there is a lack of studies describing the CCNs’ perspective on nursing the mother and her family after a complicated delivery.

**Aim**

The aim with this study was to describe CCNs’ experience of providing nursing to the new mother and her family after a complicated delivery.

**METHODS**

**Design**

A descriptive, inductive, qualitative study was performed based on focus group discussions (FGD). A qualitative approach was taken as it focuses on the views of the people and their perception, meaning and interpretation of the situation (Holloway and Wheeler, 2010). Qualitative research is founded on describing the experiences of peoples’ experiences and their connection with social reality. FGD (cf. Krueger and Casey, 2009) were used for data collection as the method works particularly well when the researcher wants to establish the impressions, opinions and feelings among the participants surrounding a specific topic. The focus group is a more natural environment than an individual interview because participants influence and are influenced by each other, just as in real life.

**Participants and procedure**

A purposive sample (cf. Polit and Beck, 2012) of 13 CCNs participated. The inclusion criteria for participation in the study were being a registered nurse with specialist training in intensive and critical care; experience of working in an ICU for at least 2 years and experience of nursing families after complicated deliveries, which meant nursing mothers in an ICU or postoperative unit. The CCNs in this study had worked for 2, 5–27 years (md = 12) as CCNs, they were aged 34–63 years (md = 48), and included one male and twelve females. The managers of an ICU and
a maternity ward in the north of Sweden were informed about the study and approved its implementation. In total approximately 50 CCNs work in the ICU and 15, who met the inclusion criteria, were informed by letter about the aim of the study and invited to participate. Thirteen CCNs agreed to participate by signing a consent letter, and were then contacted by the first author to set up times for the FGDs.

Context
The ICU consists of an intensive-care section and a postoperative section and there are in total about 20 patient beds in the ICU. Usually after a complicated childbirth mothers stay in the postoperative section. In cases when the condition of the mother is life threatening she is transported to the intensive care section.

Data collection
Three FGDs were held in the ICU during 2012 with four or five CCNs in each group. The FGDs were initiated by using open-ended questions where the CCNs were asked to describe and discuss their experiences related to nursing mothers in the ICU after complicated childbirths. The first author was the moderator and facilitator (cf. Krueger and Casey, 2009). Each FGD lasted between 45 and 80 minutes, was recorded on an mp3-file and later transcribed verbatim. The CCNs worked in the same ICU and knew each other, which can be seen as an advantage as they had shared experiences that could be discussed (Kitzinger, 1994). According to McLafferty (2004), homogeneous groups appear to work better than those that are heterogeneous. Group interaction was productive and elicited responses to the issued raised.

Ethical consideration
The CCNs were given both written and oral information before the FGDs. They were assured that they could withdraw their participation in the study at any time and that the findings would be presented confidentially. The participants were instructed not to discuss the content of the conversations outside the group. The study was conducted according to the Ethical Review Act (Ministry of Education and Cultural Affairs, 2003:460) and was approved by the Regional Ethics Board (Dnr 09-098M).

Data analysis
The transcription of the FGDs was analysed using qualitative content analysis as described by Downe-Wamboldt (1992). To gain a sense of the whole the transcription was read in its entirety, followed by a closer reading to identify text units guided by the aim of the study. The text units were condensed and sorted into categories related by content, in a four-step process where they were defined and redefined and finally subsumed into four categories. When the final categories were determined, the text units were reread and checked for the appropriateness of the categorization. The authors analysed the transcriptions independently, and their findings before reaching final agreement.

FINDINGS
The mother and her vital functions are prioritized
When CCNs were asked about their experiences of nursing new mothers and their families they started by describing observations of physiological values. CCNs said that the mothers were usually tired after the anaesthesia and the birth and it could therefore be hard to communicate with them. It could also sometimes be difficult to understand why the childbirth had become complicated and the CCNs said they asked themselves why did this happen. This was experienced especially if it was the first child in the family. CCNs described their task as being primarily to save lives, which in these cases was the mother’s life. They described having to check how the patient was, if she needed blood and why she was tired. CCNs said they understood that after an emergency caesarean section the mother was tired, but still they needed to observe if she continued to bleed by checking haemoglobin, blood pressure, pulse and the colour of her skin. Some CCNs said that they used to lift the quilt to see if the mother was bleeding more than usual. They said it was important to talk to the mother and see if she could answer, and they also felt her to see if she was in a cold sweat.

You have to notice that after a catastrophic caesarean section that is she tired, well, she has been asleep but you must anyhow check if she keeps on bleeding. (FGD 2 CCN 9)

I usually watch her, check the hemoglobin and the color of her skin and all the usual. (CCN 7)

I usually talk until the patient answers and then I look and feel if she is cold and sweaty or warm. (CCN 6)

The goals for the CCNs were to stabilize the mother’s circulation, check the bleeding, ensure that the mother was pain free and finally able to leave the ICU. The
CCNs described cases when the mother had been very close to death and it had been difficult to stop the bleeding, and how hard it could be to handle such situations. In one FGD, the CCNs discussed a case when the mother refused a blood transfusion and the ethical dilemma this posed when she almost bled to death.

Yes, it felt really strange in a way, she was really critically ill and it felt strange and there was one physician here who said we aren't going to let someone who just became a mother die in this hospital, yeah, that was a really unpleasant situation. (FGD 3 CCN 10)

What happened then? (Moderator)

We managed to stop the bleeding with help of other products, but she was very ill, and it was difficult, as you have a responsibility when a child is involved. (CCN 10)

Not being responsible for the child and the father

The CCNs described their responsibility as being there for the mother, not the child or the father, but that they usually also looked after them. As long as the father of the child seemed to be well they did not prioritize the father's needs. There were descriptions of events where the newborn children had become acutely, critically ill while with their mothers in the ICU.

I've experienced events that were not so nice. The first child...I saw it was completely blue. And then it didn't breathe and it was crowded in the postoperative section. Another CCN picked him up and patted him and then he had phlegm and the anesthesia physician relieved that and it was horrible. The other time there was a child with low blood-sugar who was in kind of daze. I'm not really fond of having them there because the mothers are so tired and then the midwife might be there already with the child and the father and put the child to the breast and we don't really have this...we have difficulties helping them. (FGD 2 CCN 9)

The CCNs referred to a written guideline that said that the responsibility for the child lay with the father or partner while they were in the ICU, but they also realized that this could be problematic. Mostly the CCNs thought it was good for the mother to have the child and father present in the ICU; it was important for the mother to see that the child was healthy and also to have the father or partner present close by.

It's the father who is responsible for the child but I understand that you don't have that knowledge as a dad; I mean to see what is happening and know how to behave, especially if it's their first child. (FGD 1 CCN 2)

According to the CCNs they should nurse the mother not the child, who was the father's responsibility, but they also said situations occurred where the whole family was involved and they wanted to support them all. The CCNs differed in their views about their responsibility to give the whole family support, some really cared about the whole family while some stated that they had no responsibility for the child and its father.

I think that if there's a lot to do in the postoperative section and a mother arrives with a child who is screaming a lot, then it can be really problematic if there are other patients. You don't know why they are crying and there might be confused patients there and it becomes noisy when the child is crying and then to make the father to realize that he should take care for the crying child. (FGD 1 CCN 3)

An environment unsuited to the new family

CCNs said that they liked having the mothers in the ICU, but they wished it could be more private and that they could see the person lying there, not just a postoperative patient. They described usually placing the mother and her family in a corner, if possible, where the new family can have more peace and quiet.

To have it more secluded for the mother, father and child so they don't have to hear us talking and running around and bells ringing and so on. I would like to have that or what do you think? (FGD 2 CCN 9)

Yes, I think like you, more secluded. (CCN 7)

Yeah, there's rather a high decibel count. (CCN 8)

CCNs said that the environment was not optimal as they had to mix patients with different diagnoses and surgeries, as in having a patient after a hysterectomy and a mother after a complicated birth close to each other. CCNs explained that in the ICU there was so much noise, so many lights and it was difficult to make it nice for the new family. They had to monitor vital
CCNs described situations when the mother could not be with her child and that felt hard as they thought that the mother and child should be together to be able bond. The reasons for separation could be that the mother was too ill or too tired or the child was critically ill. It could be hard to calm the mother if the child was not present in the ICU and mothers might prefer to leave the ICU to be able to be with their child.

"It feels difficult, it’s hard ... I think that the mother should be with her child, those who are here cannot bond." (FGD 3 CCN 13)

Collaboration with staff in neonatal and maternity wards

The CCNs said that they cooperated well with the staff in the neonatal and maternity wards. They could call them and ask about the child in order to pass on the information to the mother. It could be difficult when the mother wanted to have the child close by, to tell her that the child was really ill and could not leave the neonatal ward.

"If the delivery has been difficult and the mother is tired she is anyhow pleased if the child is well but it’s like you said, if anything has happened with the child then they want the child to come but that’s not possible and they get stressed and then I feel sort of inadequate, I can phone the neonatal ward and they might say that the child is in an incubator and right now it looks okay and I can tell the mother and she is secure for maybe half an hour but then I see she becomes worried ... I think it’s kind of worrying that I can’t calm because then they don’t want to stay with us, they want to leave to be with their child and see how he or she is." (FGD2 CCN 6)

Most of the CCNs said that they did not usually palpate the mother’s stomach or the uterus as they did not know about how to do it; instead they left that task to the midwives, as the CCNs thought the midwives had the competence and the responsibility.

"I don’t know what to palpate, I don’t know what I ought to feel." (CCN 8)

"It feels safe to have the midwives here, they are experienced. It’s nice to be able to consult them and get advice if needed." (CCN 7)

DISCUSSION

The aim of this study was to describe CCNs’ experience of nursing mothers and their families after a complicated childbirth. The findings show that the mother’s situation, and especially her vital signs, were prioritized by the CCNs. McClure et al. (2011) show that in order to save the mothers’ lives it is vital to recognize serious illness and to manage haemorrhage, sepsis and pre-eclampsia/eclampsia for instance. When the focus is on saving the mothers’ lives and on their vital functions there might be a risk that the mothers feel they have no control over their own experiences and it is, therefore, essential that staff inform them about the process (Elmir et al., 2010). Engström and Lindberg (2012) show that after a complicated childbirth entailing a stay in an ICU, mothers feel that they were less ill than other patients and therefore less important. According to Gallagher (2004), we are vulnerable, particularly in relation to dignity, at all stages of life. Ethical competence in practice requires seeing justly and compassionately, reflecting, knowing the theoretical context of dignity and demonstrating a commitment to act on it (Gallagher, 2004).

The findings in this study show that the environment in the ICU, especially in the postoperative section, may not be the most suitable for a new family and questions might asked regarding what can be done about that or where the best place is for the new family after a complicated childbirth. According to Pollock (2006), more than one third of postnatal mothers cared in an ICU do not require any ICU service such as ventilation or inotrope support. Ryan et al. (2000) suggest nursing these patients in a high-dependency unit that has the advantage of access to expert obstetric and critical care management. The obvious advantages of keeping mother and child together combined with the improved continuity of antenatal and postnatal care are benefits provided by facilities within this setting. Brezinski et al. (2012) suggest the use of a BabyCam to provide real-time video telemedicine communication in neonatal transport with access to expert neonatology assessment and the possibility for mothers to view their child remotely. Kynoch et al. (2010) found that, although most obstetric patients admitted to the ICU stay only a short time, CCNs stress that they feel inadequately trained to assist these women. They suggest that CCNs need education in obstetric critical illnesses and support from a multidisciplinary team. ICUs with no direct access to maternity services need access to appropriately trained liaison midwifery specialists (Kynoch et al., 2010). The development of education packages, specific care paths and guidelines, based
on expert research would assist in increasing the competence and confidence of CCNs in caring for this group of patients (Kynoch et al. 2010). Most of the CCNs said that they preferred midwives to palpate the mother’s uterus. Critical care nursing and midwifery are quite separate domains of practice, with little overlap of knowledge and skills (Pollock, 2006). With no established critical care obstetric service, infrequent clinical exposure to critically ill pregnant women and the lack of any process for sharing collective experience the opportunity to develop clinical expertise is limited (Pollock, 2006). Cooperation between CCNs and midwives is important for its own sake, but first and foremost for the mothers and their families. Lindahl and Norberg (2002) show that CCNs want to develop and improve the nursing care, but experience this as difficult when they lack support and resources from colleagues and the organization.

Study limitation
According to Webb and Kevern (2001) one critique of FGDs is that the selection of the FGD is often justified in terms of the benefits of participant interaction, but that this interaction is rarely reported. Therefore, the findings here present both similarities and differences in experiences that the CCNs expressed elicited by the interactions within the FGDs. This study is limited to a purposive sample of 13 CCNs working in one ICU in one hospital, the transferability of the findings must therefore take in the context of the study to consideration. Polit and Beck (2012) suggest providing descriptions to allow judgement about what can be transferred and we have tried to describe the research setting as closely as possible without threatening the confidentiality of the CCNs who participated. Only four or five CCNs participated in each FGD. When discussing a sensitive topic it is an advantage to have fewer participants and participants with a similar background who feel comfortable discussing their experiences (Kitzinger, 1994; Webb and Kevern, 2001).

CONCLUSION
When nursing a mother after a complicated childbirth CCNs give her vital signs high priority, for instance by focusing on control of bleeding and relief of pain. There is no clear agreement between CCNs and midwives which defines the responsibility of caring for the new family. While CCNs’ priority is the mother’s vital status, the father or partner and the newborn child get less attention. Education about the needs of new families and of collaboration between CCNs and midwives concerning shared responsibility in nursing care are suggested as improvements that could be made in the nursing of mothers after a complicated childbirth. It may also be questioned whether the ICU is always the best location for care of mothers and new families, or whether a high-dependency unit might be a better alternative for some.

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WHAT IS KNOWN ABOUT THIS TOPIC
- It is important for mothers to remain in control of what happens during and after a complicated childbirth.
- The new family needs to be together, even during the time spent in an ICU.
- Women who become mothers after a complicated delivery have special needs and CCNs need knowledge and skills in this type of nursing care.
- The father of the child or partner of the mother have their own needs in this difficult situation.

WHAT THIS PAPER ADDS
- When nursing a mother after a complicated birth CCNs prioritize the woman and her vital signs.
- The fathers of the children or partners of the mothers are expected to take responsibility and care for the newborn child and to serve as the link with the neonatal ward.
- Education and reflections about the needs of new families are suggested as an improvement when nursing mothers after complicated childbirth. The environment in the postoperative parts of ICUs could be improved.
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