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CRITICAL REFLECTION ON PRACTICE DEVELOPMENT

The nursing contribution to ethical decision making

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Abstract
Background: In the neonatal care units of the University Hospitals of Zurich and Bern, the nurse´s role in ethical decision making is well established. However, nurses often reported uncertainty with regard to introducing the premature infant's situation from the nursing perspective in ethics rounds.
Aims: To empower neonatal nurses in fulfilling their role in the multiprofessional decision-making process, we performed a practice development project. On the basis of the Iowa model we developed a checklist for presenting the nursing history of premature infants in an ethically competent and responsible way.
Conclusions: The 'checklist for nursing assessment in the context of ethical decision making', equips nurses for their professional contribution to ethics rounds, making them better prepared to present the nursing perspective in a structured and thorough manner.
Implications for practice:

- The Iowa model supports practice development even with limited data availability
- The instrument invigorates the neonatal nurse´s role in the multiprofessional ethical decision-making process
- It is crucial to involve peers in practice development

Keywords: Practice development, decision making, ethics, neonatal nursing, assessment, empowerment

Introduction

Benjamin's story

Benjamin was born at 25 (0/7) weeks' gestation. Foetal lung maturation was induced and tocolysis administered. Due to placental abruption, an emergency caesarean section was performed. Benjamin did not breathe spontaneously at birth; his respiratory distress syndrome required nasal CPAP. Afterwards, Benjamin was increasingly reactive. Medical results were as follows:

- Very immature infant with slightly reduced general condition; weight: 700g
- Stable circulation with normal blood pressure
- Cranial sonography showed a very immature brain with mild periventricular echogenicity, but without reference to cerebral haemorrhage
- Mild respiratory distress syndrome, on nasal CPAP without supplemental oxygen

Benjamin received a glucose infusion. From the perspective of the neonatal nurses, he was variously resilient and his temperature unstable, but initially seemed to be content. However, on the second day, Benjamin developed severe apnoea. He was restless, appeared to be in pain and was inconsolable. There were no signs of infection. His neurological situation rapidly deteriorated and cranial ultrasonography revealed extensive cerebral haemorrhage and infarction.

A multiprofessional ethics round was convened to discuss further steps. The primary nurse was responsible for presenting the nursing perspective.

The ethical decision-making process

Progress in neonatal intensive care has contributed to increasing survival rates among extremely preterm infants in critical conditions (Lumley, 2003; Saigal and Doyle, 2008). Neonatal nurses regularly face clinical problems requiring complex ethical decision making.

In the neonatal care units of the University Hospitals of Zurich and Bern, ethical decision making is based on an adapted version of the seven-step model (Baumann-Hölzle, 1999; Medizinethischer Arbeitskreis Neonatologie Universitätsspital Zürich, 2002). This model thoroughly identifies ethical and medical issues in the clinical setting. Any member of the neonatal nursing or physician team can convene an ethics round when confronted with difficult decisions. In particular, those directly involved in caring for premature infants have the opportunity to share responsibility. Other team members are welcome to participate.

The decision-making process is based on facts, solid expertise and professional experience. It takes into account different perspectives. If necessary, neurologists, geneticists, ethicists and counsellors can be called on to contribute their expertise. After weighing the pros and cons, the team discusses the best course of treatment and informs the parents.

Ethical nursing competence

Nurses' role in the ethics round is established and recognised as part of their clinical responsibilities. In order to participate competently in ethics rounds, nurses need to understand the ethical decision-making process and should feel secure as well as competent in their roles (McCormack and McCance, 2006). In the context of case discussions, nurses are regularly confronted with ethical topics and can consolidate their knowledge.

During the preparation of ethics rounds, the nursing history is of particular importance, forming the basis for responsibly introducing the nursing perspective in the decision-making process. However, after attending ethics rounds, nurses often report uncertainty with regard to presenting their perspective on the infant's situation, with the following questions arising:

- Did I succeed in assuming the role of the advocate for this infant in the best possible way?
- Did I consider all clinically relevant information concerning the nursing care situation?
- Did I mention all major nursing issues?

Such questions provided the impetus for this study's authors to address the situation. The aim was to strengthen the nurses' competence and to give them greater confidence in their role. In both hospitals, the culture of the neonatal intensive care unit supports practice development and encourages nurses´ participation in continuously improving professional practice (McCormack and McCance, 2006). In this favourable context, we conducted a practice development project.

Development and implementation of the checklist

The Iowa model of evidence-based practice (Titler et al., 2001) served as a basis for the practice development project. Following the six steps of this model, the authors proceeded as follows:

Step 1: Identification of the problem

An examination of 40 nursing reports from 2009 confirmed the nurses' description of their experience in ethics rounds. They revealed the need for a more targeted preparation for presenting the nursing history in the context of the ethical decision-making process. The analysis showed that nurses' descriptions of the nursing perspective of the infant´s situation was often unstructured and incomplete. The following factors were identified:

- Precise and professional language was missing; different terms were used for identical phenomena and nursing concepts
- Objective parameters and measurement instruments; for example, no mention was made of the Bernese Pain Scale for Neonates (Cignacco and Stoffel, 2002) or the Swiss Neonatal Skin Score (Stoffel et al., 2000)
- The environment-related behaviour of the premature infant was not considered
- Statements on bonding behaviour were missing

The examination of nursing reports clearly revealed nurses' need for a tool to facilitate systematic preparation in the context of ethical rounds.

Step 2: Literature search

A literature search for a nursing assessment tool in the context of ethical decision making in the databases Medline, CINAHL and the Cochrane Library for the years 2000-2014, using the keywords 'decision making', 'ethics' and 'neonatal nurse', yielded few publications concerning the role and responsibilities of nurses in the ethical decision-making process. No studies addressing the content of a nursing assessment were identified.

The results of the literature search were instructive only with regard to the role of nurses, without explication of how this role is performed. The results of a study by Monterosso et al. (2005) reveal that neonatal nurses primarily consider themselves as the infants' advocates, with a responsibility to articulate the concerns of preterm infants and their parents. To perform this role, nurses not only need knowledge in neonatology and professional experience but also communication skills, empathy, respect for the family, self-confidence, persuasiveness and trust (Monterosso et al., 2005; Juretschke, 2008). Currier (2000) interviewed 1,321 neonatal nurse practitioners about life-sustaining measures in critically ill premature infants. The majority of the respondents (63%) said they would like to share ethical and legal responsibility with the doctors, while 96% support the involvement of parents in the decision-making process. Several authors (Becker, 2000; Currier, 2000; Shotton, 2000; Catlin, 2007) confirm the importance of nurses' and neonatal nurse practitioners' participation in the ethical decision-making process. They address important aspects leading to a more complete assessment of the overall situation. As Epstein (2007) and Laing (2013) indicate, the decision-making process is experienced as challenging for the entire treatment team.

Step 3: Review of relevant literature

The literature revealed that neonatal nurses are involved in various aspects of the ethical decision-making process. However, the specific skills for exercising this role are not described. Concepts or studies concerning neonatal nursing assessment in the context of ethical decision-making are missing in international literature.

Step 4: Inclusion of expert opinion

We decided to develop a tool to address this gap in published research. Our aim was to empower neonatal nurses in fulfilling their role in the decision-making process in an ethically competent and responsible way. From the beginning, we included the hospitals' neonatal intensive care unit nurses in the development process.

Step 5: Implementation of changes in the institutions
Nurse managers of the neonatal units approved the development and implementation of a tool. The internal ethics committees of the respective neonatal units responded positively and supported the proposal for the following pilot project.

Step 6: Pilot project
The pilot project comprised six elements:

- Defining outcome indicators
- Assessing baseline values before intervention
- Creating an evidence-based guideline
- Implementing the project on pilot units
- Evaluating outcome indicators
- Adapting guidelines

Defining outcome indicators
We chose one structure-related outcome indicator (a) as well as one empowerment-related outcome-indicator (b):

a. A structured presentation of the nursing assessment is documented in the ethical decision-making protocol
b. Nurses are empowered to present their assessment responsibly, indicating that they feel competent and self-confident in representing the infants' interests

Assessing baseline values before implementing the checklist
As baseline values, we used data from the previous nursing documentation analysis (see Step 1, above). In addition, we developed a questionnaire in order to explore nurses' subjective feelings of confidence and satisfaction with their presentation during ethics rounds. To develop the questionnaire, we used a structured instrument (Polit and Beck, 2008). Four neonatal nurses tested this questionnaire with regard to its comprehensibility and completeness.

A total of 41 neonatal registered nurses, with professional experience ranging from one to 22 years, answered the questionnaire. The results revealed that nurses with longstanding experience performed better in preparing and presenting the nursing assessment. They felt competent in their roles. Most of the experienced nurses conducted a structured assessment but less than a third (29%) always based their presentation on objective parameters.

Nurses with less professional experience displayed less-structured presentations of the infants' situations. Additionally, they tended to feel more insecure or pressured. Frequently, a 'lack of time' influenced their contribution to the discussion. Almost half of all the nurses were not sure about the precision and completeness of their report. Most felt relieved after the ethics round, although two had the impression that they were often ignored by colleagues of other professional groups.

Creating a checklist
We followed Polit and Beck´s procedure (2008) to develop the checklist. Significant and objective criteria were identified for a nursing assessment checklist in the context of ethical decision making. Experienced nurses from the internal neonatal intensive care unit ethics committees tested the criteria and answered the following two questions:

- Are the criteria relevant?
- Are there any additional criteria?

Based on positive feedback, we developed a 'checklist for nursing assessment in the context of ethical decision making' (Figure 1). This includes six parameters:

1. Stress (resilience, recovery time after manipulation)
2. Pain (Bernese Pain Scale for Neonates), painful interventions per 24 hours, pain medication and medication response
3. Skin conditions (Swiss Neonatal Skin Score)
4. Temperature stability
5. Environment-related behaviour
6. Bonding behaviour/parent-child interaction

The nurses evaluated these parameters and commented on them in the right column of the checklist. Afterwards, they wrote an overall assessment.

Figure 1: Checklist for nursing assessment in the context of ethical decision making

Name of the infant:
Date of birth:
Gestational age:

Parameter	Evaluation/comment
Stress • Resilience/recovery time after manipulation • Spreading out fingers, increased blinking or sticking out tongue	
Pain • Bernese Pain Scale for Neonates • Painful interventions • Pain medication/response to pain medication	BPSN value/24h:
Skin conditions • Swiss Neonatal Skin Score • Skin defects	SNSS values:
Temperature stability	
Environment-related behaviour • Desire to 'suck' • Relaxes when massaged/ kangaroo holding or music	
Parent-child interaction • How does the child respond to parents? • How do parents respond to their child?	
Nurse's overall assessment	
Date of assessment: ***Assessment made by:***	

Implementing the project on pilot units
We implemented the pilot project in both neonatology units simultaneously, following a previously successful method of practice development (Manley and McCormack, 2003):

- Training for intensive and intermediate care nurses participating in the ethical decision-making process (developing knowledge and skills)
- Coaching for nurses in practice (enabling nurses to transform the culture and context of care by supporting continuous improvement)

The implementation of the pilot project was characterised by continuous empowerment of the neonatal intensive care unit nurses and close collaboration with them.

Evaluating outcome indicators
We investigated the data from the nursing documentation analysis with regard to the content of the nursing perspective. To evaluate the nurses´ subjective assessment, we used our questionnaire. Nine nurses utilised the checklist as a basis for the presentation of the nursing history and completed the questionnaire.

Nursing perspective
Using the checklist, it was possible to present the nursing perspective in the ethical decision-making process in a structured and thorough manner. A participant in the ethics round described the effect of the checklist as follows:

> *'In my view, before the introduction of the instrument, the nursing perspective was "in the shadow" of the doctors' arguments. The nurses more or less confirmed the medical assessments and remained very vague. Now, this has completely changed. With the help of the checklist, nurses are able to convey concrete and exact information – much better than those of the doctors. Due to the specifications, all parameters are now addressed, whereas before it seemed to be entirely random which parameters were mentioned.'*

Questionnaire
All the nine nurses confirmed that they use a structured approach and address all parameters. Regardless of their practical experience, they felt competent and well-prepared for their task. One commented: 'Using the checklist for preparing gave me confidence. Now I have a guideline to rely on.' Additionally, nurses were satisfied with their assessment and able convincingly to introduce the nursing perspective into the discussion: 'I was happy with it, because the nursing aspects had been too vague in the past.' The nurses' satisfaction can be associated with the outcome category 'Feeling of wellbeing' in the "Person-centred Nursing Framework" (McCormack and McCance, 2006).

Adapting the checklist
In the pilot project, the checklist proved successful. Its implementation can be recommended for its potential to empower nurses to contribute more competently and confidently to ethical decision-making. Based on the evaluation results, the checklist can be adapted and, if necessary, adjusted.

Ethical decision making for Benjamin
Using the checklist, Benjamin's primary nurse was able to prepare for a targeted and systematic presentation of the nursing perspective.

The arguments she submitted in the ethics round are presented in Box 1.

Box 1: Nurse's contribution to ethics round

'Based on his behavioral expressions, we can see that Benjamin is under severe stress.
The recovery time after a manipulation is an average of 10 minutes.
Based on the Bernese Pain Scale values of 12 to 17, we can rank Benjamin's pain level as very high.
He is exposed to 38 painful interventions over 24 hours.

'His pain medication consists of non-pharmcological interventions and after that his Bernese Pain Scale value is between 8 and 10 points.

'Based on the Swiss Neonatal Skin Score values we can rank Benjamin´s skin condition as high risk. His skin is visibly red on <50 % of the total skin surface.

'Benjamin's temperature regulation is unstable and he has increased gradients of up to 3.5 degrees. His behavior towards his environment shows that he hardly reacts to stimuli, for example when his diaper is changed.

'From our point of view, the parent-child interactions are difficult. Benjamin barely responds to his parents and is apathetic. The parents gently respond to their infant, caress Benjamin, tell him stories and try to give him courage.

'All in all, from the nursing point of view, we have come to the following conclusion: Benjamin is a very sick infant, constantly exposed to stressful and painful interventions and is unlikely to recover. In our opinion he is suffering at the moment.'

Concluding remarks

By means of the 'checklist for nursing assessment in the context of ethical decision-making', the nursing perspective can be systematically integrated into the ethical decision-making process. Nurses using the checklist feel more confident and are better able to represent the preterm infants' interests. As a result, neonatal nurses are strengthened in their role as contributors to the multiprofessional decision-making process and feel more competent and secure in their roles. A nurse concluded:

> *'The checklist is an important instrument to generate concrete information with regard to the current status of the child from a nursing point of view. Thus, it is indispensable for my work.'*

Although the checklist supports a professional approach, nurses' emotional concerns remain. We recommend that nurses address emotional issues by participating in case discussions, or obtain advice in supervision.

Looking back on our practice development project, the close collaboration with the neonatal intensive care unit nurses proved crucial for success. The nurses' valuable expertise directly influenced the development process. Our colleagues became familiar with the different steps of practice development and felt responsible for ensuring optimal implementation of the instrument. Benjamin´s story illustrates that the nurses' professionalism significantly improved. They now can rely on evidence-based knowledge in the decision-making process, and the multiprofessional team benefits from their contribution.

In retrospect, we think that it would have been meaningful to involve the medical team as well. For doctors with limited clinical experience, a similar instrument may provide helpful support. Undertaking a practice development project in two hospitals requires comprehensive planning and mutual trust, as well as resources. Particularly during the stage of evaluation, the cooperation proved to be useful, making it possible to generate a large amount of results in a short period of time. Continuous support from the neonatal intensive care unit management was essential for our project. Based on our experience, facilitative leadership is indispensable for practice development.

In summary, our project to empower nurses in the ethical decision-making process offers evidence that practice development is effective.

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