

Research Article

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Limits of professional competency in nurses working in Nicu

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Abstract: Our study aimed to find out the views of nurses working in neonatal intensive care units about the limits of professional competencies and to identify situations where the limits are crossed.

Methods. The research employed the focus group method. For this research we had three focus groups with nurses working in neonatal intensive care units. The results of the study were analysed using the thematic analysis described in Braun and Clarke.

Results and conclusions. Based on our research findings, it can be stated that the limits of professional competence of nursing staff working in neonatal intensive care units are defined and clear, but nurses often perform actions exceeding their competencies. This is usually done on the initiative of the nurses themselves, in cases of the deterioration of the state of the newborn, or when doctors delegate their functions to them. Confidence expressed by doctors leads to conflicting feelings of concern and, at the same time, pride in themselves.

Keywords: Professional competency; Intensive care, nurses

1 Introduction

The professional activities of nursing specialists are classified into general nursing and specialised nursing, and this

is regulated by law. Nursing is defined as an additional competence of a general practice nurse or an obstetrician in the field of specialized nursing. One of the fields of specialised nursing would be anaesthesiology and intensive care [1].

This professional norm emphasizes that the professional competence of a nurse in the field of anaesthesia and intensive care includes knowledge, abilities, and skills acquired during studies when they obtain a general practitioner's professional qualification. The specialised knowledge, necessary skills, and competences are acquired in specialized training programs for anaesthesia and intensive care [1].

Competencies of intensive care nursing and how to obtain them are quite widely covered in scientific research. It is noted that the concept of competence is a complex one. It is described as the professional ability to act, i.e. to determine knowledge, abilities, skills, attitudes, personality traits, and values [2-4]. It can be argued that the concept of "competence" can be equated to successful activity, efficient use of resources, and adequate choices. The structure of competence in terms of nursing can be divided into six parts, five of which are the same for all clinical nursing areas, i.e. practical, communication, and management skills, raising professional qualifications (learning) and scientific research. The sixth aspect of nursing competencies is specific and reflects the needs of the particular clinical area [3]. This establishes an holistic understanding of excellence, which encompasses the ability to evaluate new situations, to choose the most appropriate methods of professional action, and to continuously integrate knowledge both in the field and the profession as a whole [5]. It should be emphasized that besides observed competence of qualification (knowledge and skills), there is an un-observed part, which affects general competency. It includes self-perception, personal characteristics (physical and mental attributes), and motivation [6].

Research shows that there are key attributes of nurses determining their professional competence: skills, intelligence, altruism, and responsibility [6,7]. Our study aimed

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to find out the views of nurses working in neonatal intensive care units about the limits of professional competencies and to identify situations where the limits are crossed.

2 Material and methods

2.1 Study design and data collection

The study was conducted in NICUs of 2 perinatology centres in tertiary health care in Lithuania. The research employed the focus group method, which allows the questions of interest to be discussed in a short time. For this research we had three focus groups with nurses working in neonatal intensive care units. The length of each discussion ranged from 1 hour and 5 minutes to 1 hour and 20 minutes. To ensure comprehensive and effective research of the issue and a sufficient number of participants, each focus group involved 5 nurses in a discussion.

The sample consisted of 15 mid-age intensive care nurses. Most are married, live in the city, and had no university education. They had an average of over 22 years of work experience in neonatal intensive care units. The characteristics of the research participants are presented in Table 1.

Every participating person signed an informed consent agreement. The nurses who agreed to participate were provided a convenient time and place for the group discussion. Analysis of the group discussion material was presented in the form of quotes from unrelated stories. Prior to the study, each person was informed of her rights regarding personal data handling, including the right to know what personal data was being used and the right to correct, delete, or stop personal data handling should

she desire to withdraw from the study. Furthermore, it was made clear that if a nurse decided to withdraw or otherwise decline to participate, such a decision would not influence her professional career.

Two researchers participated in each of the focus groups. One of them, the author of this article, was moderating the discussion, and the other was observing the process. The main criteria for selecting the observer of the discussion were her ability to be objective and her level of experience in moderating and participating in focus groups.

The discussions were arranged in a circle format for both participants and researchers. This allowed everyone to observe each other, maintain eye contact, and encourage engagement in the discussion. Discussions were led according to the framework of the conversation, which was developed in advance. The following leading questions were used to open or direct the discussion:

- What kind of preparation do nurses need to be able to work in a neonatal intensive care unit?
- How would you describe your interaction with a team of doctors and parents of newborns?

At the beginning of the discussion, participants introduced themselves, answered questions about work, how they felt after a day of work (e.g., “Did you get very tired at work today?”). This made it possible to get acquainted with the participants of the focus group, to establish contact with them. Gradually, the discussion was led to the research questions. Questions were formed freely, stimulating the discussion process (e.g., “So, what are the tasks that rightfully belong to doctors, but, from your perspective, are often performed by you?”; “What do you often talk about, what information do you provide to the parents of newborns? Are there any forbidden topics or things you shouldn’t do or say to parents in cases when a baby dies?”).

Table 1: Demographic characteristics of study sample

Characteristics		n	%
Gender	Women	15	100,0
Age	Mean±SD	44,3±6,24	
Residence	City	13	86,7
	Rural area	2	13,3
Education	College	10	66,7
	University education	5	33,3
Marital status	Married	13	86,7
	Single	2	13,3
Work experience in neonatal intensive care	Mean±SD	22,3±5,07	

2.2 Data analysis

The results of the study were analysed using the thematic analysis described in Braun and Clarke (2006) [8]. This method was used to highlight the structure of data identification, analysis, and presentation of results. Following the recommendations of the methodologists, the data analysis process involved 6 steps [8, 9].

In the first phase, when transcribing the discussion material, we got acquainted with the collected data. At this stage, we repeatedly listened to the recordings of the discussions and re-read the notes, highlighting thoughts and insights that arose while listening and reading.

In the second phase, the text was broken down to find units of meanings, generating the initial code analysis checklist for the analysis of the research material.

The third phase can be called the “topic-search” phase. In this stage, the research material was re-read, suitability of the selected codes was re-evaluated, codes were grouped into subtopics, and then into potential topics.

In the fourth stage, the topics were reviewed. It was done on two levels. At first, we reviewed the topics and checked the topic titles. While reading the material, we evaluated whether the code structure was coherent, consistent, and relevant to all of the material. On the second level, re-grouping of codes took place, and the “topic map” was created.

The fifth stage can be described as the stage of identifying and defining the main themes. At this stage, material analysis was continued, and titles were created and clarified.

The sixth phase can be called the completion phase of the analysis. In describing the topic, the aim was to select vivid, logical examples that would properly illustrate and reveal the topic. The obtained results were related to scientific literature [8,9].

Ethics of the study: The study was approved by the Kaunas regional committee for bioethical research (permission No. BE-2-15).

3 Results

The nurses involved in the study paid much attention to discussing the limits of professional competence. Many controversial issues were expressed in terms of competencies. On the one hand, the limits of professional competence are defined and sufficiently clear, but when working in neonatal intensive care units, those limits are often

crossed. This happens due to the choices of nurses themselves (e.g., when trying to save a newborn’s life in an emergency situation, nurses carry out actions that exceed their competencies) and also because doctors often delegate their functions to nursing professionals, thus forcing them to go beyond the limits of their professional competence. Such confidence of physicians in nurses is controversial: on the one hand, it is pleasing, but at the same time it can be dangerous that the functions defined in job descriptions are exceeded.

3.1 Limits are defined formally and clear

The participants of the study talked about the fact that in Lithuania nursing competencies are clearly written out and their functions are formally defined: “*They [competencies] are defined and very clearly written out. <...> What we can do as a nurse, everything is [thoughtfully] defined*” (Inesa).

Particularly rigorous limits for nurses have been identified regarding communication with the parents of newborns. They are forbidden to talk about their treatment: “*We cannot tell all of the things to parents, anything to do with treatment*” (Giedrė). It is not permitted to talk about the procedures performed on newborns: “*You cannot talk about resuscitation, about antibiotics*” (Regina).

3.2 Limits often are exceeded

When speaking about competencies, nurses often emphasized that they have had to go beyond what they are permitted. According to the thoughts the nurses shared in the research, we distinguished the following reasons for exceeding competency limits:

3.3 Nurse takes greater responsibility by her own choice

It is demanded by the nature of the job, which promotes greater personal responsibility: “*... this work is special because the nurse has a lot of responsibility while performing her tasks. She sometimes takes a lot of responsibility*” (Julija). Nurses working in neonatal intensive care units feel personally responsible for a newborn baby: “*... I am responsible for the child, and he got all blue, his hands trembling*” (Edita). Therefore, the limit of competences is exceeded and sometimes a nurse does more than defined in the regulations: “*... he [the doctor] is also busy some-*

where and will not be able to catch up. Yes, then you will cross the limit, do a lot more, and think: ‘Let it be’ [gets silent]” (Inesa); “Sometimes you will cross the limit and do more than you have to, but I can’t imagine how to do [that] otherwise” (Ilona).

When working in intensive care, there are situations when one faces a dilemma: follow competency limits or simply be human? “... but do we really work like that and [or] do we really only do this? Because if you only follow what is written, you will deviate from humanity” (Inesa).

Also, nurses themselves sometimes feel that they can carry out more than mere nursing functions for newborns, more complex procedures requiring special skills: “<...> the nurse does not only, sorry, do cleaning of the butt or feeding the newborn, but many procedures [are performed], which are complex, which require knowledge, skills ...” (Julija).

3.4 Life-threatening situations

Another reason why nurses go beyond their competencies is to save the life of the newborn in life-threatening situations. In such situations, every minute is precious, and delay can cost the newborn’s life. “When a child is worsening, you are doing your job, and there is no doctor besides, and until he comes, he [the newborn] may die” (Inesa). “She [a nurse] very often just does more than just her job, because sometimes we do not have time to invite a doctor. For example, if a newborn dies, we will begin to solve the problem and someone will invite <...> (Julia).

3.5 Doctors delegate larger functions

Another reason why nurses go beyond their competencies is that doctors delegate them certain tasks. The participants in the study talked about the fact that they often carry out procedures that should be performed by doctors: “It happens [that] that we carry out doctors’ procedures for doctors” (Sandra). However, it was also noted that doctors only entrusted such procedures to experienced nurses: “It’s just those [nurses] who have worked here twenty years or more. Doctors are used that they know everything, and part of their work they put on that nurse” (Regina). The nurse named a lot of complicated procedures, which sometimes do not involve doctors: “Well, putting in the central catheter must be done in the presence of a doctor, drainage of the trachea, and we do a lot more” (Regina).

3.6 Conflicting feelings

Emergency situations in intensive care require prompt and immediate solutions. In such situations, it is very difficult to do everything the way it is written up and one needs to decide what is most important task at that moment: “Competence and responsibility, and knowing we sometimes stand at a decision which if you cross and something fails, you will get it for that thing [nervous laugh, pause], you will just get into trouble” (Julia).

During the conversation, nurses mentioned the fears that they experience when they need to go beyond their competencies. Feelings of insecurity are particularly common in recent times when parents are reluctant to actively participate and react to everything that is happening to their infant: “... it’s more because of my insecurity, I try to stay within that limit, because of all these accusations. Thinking now is terrible and going too far <...>” (Edita). Nevertheless, it was also stated that the greater responsibility delegated to them by doctors also brings feelings of satisfaction and pride: “... we really began to enjoy the appreciation and extra work that we are given” (Julia). Conflicting feelings are also caused by the fact that the nurse must adhere to the limits of the competence regulations and cannot say to parents more than is currently allowed: “She [the nurse] does not say the results, but they can say whether that procedure is done. But this is forbidden to us” (Julia).

4 Discussion

When discussing the results of the research, it is important to note that nurses who participated in it stressed that, in Lithuania, nurses in each area have their own normative regulations, which describe their competencies and competency limits very accurately [10-11]. Also, our research participants pointed out that there are extremely strict limits in communication with parents of preterm and sick newborns, which prevent the provision of information about research and the treatment applied. Nurses from other countries participating in competency surveys do not refer to similar limits of competences [13-17]. However, research suggests that in most nursing competencies, communicating with patients and their families is one of the key competencies in developing collaboration between health care team members and patients, which ultimately determines the quality of the services provided [4, 13, 15-17].

Nurses who participated in our study emphasized that when working in the field of neonatal intensive care, situations often occur when they have to go beyond their competence. One of the reasons a nurse makes this step is the sudden worsening of a newborn's condition. They take the initiative and solve emerging problems because any delay might cost the newborn's life. The management of critical situations is considered by nurses as one of the most important occupational competences [17-18]. The importance of critical decision-making and proper use of resources is also highlighted by a qualitative study of professional competences (2016) by a Brazilian cardiac surgery nurse [13].

Personal responsibility for a newborn is another reason why nurses go beyond their competencies, as mentioned in the study. The participants in the study talked about the fact that work in neonatal intensive care units encourages them to assume personal responsibility for a newborn child and do more than prescribed by the regulations. A big sense of responsibility for a nursing patient was also highlighted in the Brazilian Nursing Surgeons Survey (2016) and the Canadian Oncology Nursing Survey (2010) [13,19]. The nurses who participated in these studies, like our research team, were inclined to solve patient problems by themselves. It can be assumed that personal responsibility for the patient and autonomy in dealing with patient problems are often interrelated nursing competencies.

During the study, nurses said that doctors often delegated their functions to them. This is another reason why the competencies of nurses are exceeded. At the same time, it was noted that doctors trust not all but only the experienced nurses. Such a state of confidence creates conflicting feelings for them. Respondents said that although they were able to perform the tasks well and mastered many procedures that are in the competence of doctors, they often feel it is unsafe. Nurses note that this feeling is due to the position of parents of newborns, who tend to respond actively to everything that happens to their baby. But such trust of physicians causes not only anxiety but also gives nurses a sense of pride. More than a decade ago, in the Netherlands, there was a need to mention the need for redistribution of work done by doctors and nurses. However, over the course of the change, it is important to clearly agree on which doctors' work will be delegated to nurses, the development of instructions, and the transition period for supervision and audit. Another important precondition for a successful change is to ensure that nurses who are delegated the functions of doctors are competent and experienced [21]. The Swedish study, with

Primary Health Care Nurses, also emphasizes the development of their role in expanding their functions [22].

This study is the first in Lithuania to research the limits of nurses' professional competencies working in neonatal intensive care units (NICU) and highlights the need for further analysis of this topic. NICU nurses frequently responded that they perform tasks or procedures on neonates that are described neither in their professional curriculum nor in other official instructions. This especially happens if the condition of a neonate quickly worsens or the doctor delegates his/her competencies to the nurse. On the other hand, the nurses participating in this study highlighted that they have sufficient competencies and skills for not only simple manipulations but for more complicated ones as well. In analysing the results of our research, the question arises: Are the competencies of nurses working in NICU in Lithuania too narrow? One recommendation for further research is to investigate the competencies of NICU nurses using standardised questionnaires. The next step would be to discuss widening the competencies of nurses and then to develop a postgraduate study program for nurses with neonatal specialization and to expand the curriculum of those nurses' functions and competencies.

5 Conclusions

Based on our research findings, it can be stated that the limits of professional competence of nursing staff working in neonatal intensive care units are defined and clear, but nurses often perform actions exceeding their competencies. This is usually done on the initiative of the nurses themselves, in cases of the deterioration of the state of the newborn, or when doctors delegate their functions to them. Confidence expressed by doctors leads to conflicting feelings of concern and, at the same time, pride in themselves.

Abbreviation list

NICU – neonatal intensive care units

SD – standard deviation

Conflict of interest statement: Authors state no conflict of interest.

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