ORIGINAL ARTICLE

NURSING CARE FOR PARENTS AND THE AT-RISK NEWBORN INFANT IN A NEONATAL ICU

ASSISTÊNCIA DE ENFERMAGEM AOS PAIS E AO RECÉM-NASCIDO DE RISCO EM UMA UTI NEONATAL

ATENCIÓN DE ENFERMERÍA A LOS PADRES Y EL RECIÉN NACIDO DE RIESGO EN UNA UCI NEONATAL

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ABSTRACT
Objective: to analyze nursing care for parents and the at-risk newborn infant at a neonatal intensive care unit. Method: this is a descriptive study with a qualitative approach carried out with four nurses from the Neonatal ICU Maria Clara de Casa de Saúde Dix-Sept Rosado/Maternidade Almeida Castro, in Mossoro, Rio Grande do Norte, Brazil. Data were collected through a semi-structured interview script and analyzed using the Collective Subject Discourse technique. The study was approved under the CAEE 3524.0.000.351-10. Results: nurses believe that intimate contact to parents is crucial for the at-risk newborn infants’ recovery; nursing care aimed at the newborn infant’s family is relevant. Conclusion: it shows to be of paramount importance that nursing think of strategies for including parents in the care for the newborn infant at the neonatal intensive care unit, to ensure a humanized assistance, according to the precepts of the politics for humanization of prenatal care and childbirth. Descriptors: Neonatal Intensive Care Unit; Nursing Care; Newborn Infant; Parent-Child Interaction.

RESUMEN
Objetivo: analizar a asistencia de enfermería a los padres y al recién nacido de riesgo en una unidad de terapia intensiva neonatal. Método: trata-se de un estudio descriptivo con abordaje cualitativo realizado con cuatro enfermeros de la UTI Neonatal Maria Clara de Casa de Saúde Dix-Sept Rosado/Maternidade Almeida Castro, en Mossoró-RN. Os dados foram coletados por meio de roteiro de entrevista semiestruturada e analisados utilizando a técnica do Discursso Coletivo. A pesquisa foi aprovada sob o CAEE 3524.0.000.351-10. Resultados: os enfermeiros acreditam que o contato íntimo com os pais é fundamental para a recuperação dos recém-nascidos de risco; a asistencia de enfermería voltada à familia del recém-nacido es relevante. Conclusión: muestra de suma importancia que a enfermagem pense em estratégias para incluir os pais na asistencia ao recém-nascido na unidade de terapia intensiva neonatal, para garantir uma asistencia humanizada, de acordo com los preceitos de la política de humanización del pré-natal e nacimiento. Descritores: Unidade de Terapia Intensiva Neonatal; Asistencia de Enfermería; Recém-Nacido; Interacción Pais-Filhos.

RESUMEN
Objetivo: analizar la atención de enfermería a los padres y al recién nacido de riesgo en una unidad de cuidados intensivos neonatal. Método: esto es un estudio descriptivo con abordaje cuantitativo realizado con cuatro enfermeros de la UCI Neonatal Maria Clara de Casa de Saúde Dix-Sept Rosado/Maternidade Almeida Castro, in Mossoró, Rio Grande do Norte, Brasil. Los datos fueron recogidos por medio de guión de entrevista semi-estructurada y analizados utilizando la técnica del Discursso Colectivo. La investigación fue aprobada bajo el CAEE 3524.0.000.351-10. Resultados: los enfermeiros acreditan que el contacto íntimo con los padres es fundamental para la recuperación de los recién nacidos de riesgo; la atención de enfermería dirigida a la familia del recién nacido es relevante. Conclusion: se muestra de vital importancia que la enfermería piense en estrategias para incluir a los padres en la asistencia al recién nacido en la unidad de cuidados intensivos neonatal, para garantizar una atención humanizada, de acuerdo con los preceptos de la política de humanización de la atención prenatal y el nacimiento. Descriptores: unidad de cuidados Intensivos Neonatal; Atención de Enfermería; Recién Nacido; Interacción Padres-Hijo.

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INTRODUCTION

The neonatal intensive care unit (NICU) is a space aimed to care for high risk newborn infants (NIs) suffering from the consequences of a wide variety of physiopathological changes and require continuous and specialized care procedures. The premature neonate is the high risk newborn infant removed from the mother’s womb before her/his full maturation (before completing 37 gestational weeks) and weighing < 1,500 g.

The requirements for admission to the NICU are: low weight (< 1,500 g); small for gestational age; preterm; daughter/son of a diabetic mother; malformation; suspected congenital infection; non-physiological jaundice; postmaturity; perinatal asphyxia; major congenital anomalies; acute anemia; hemorrhagic syndromes; seizures; pre- and postoperative period; umbilical cord prolapse; chronic fetal distress; subacute or acute; placenta previa or placental abruption; difficult delivery or traumatic fetal injury; multiple pregnancy; oligohydramnios and polyhydramnios; hyaline membrane or another respiratory difficulty; sepsis; hemolytic disease; and congenital heart disease.

The newborn infants are discharged only when they show to be stable with regard to their clinical conditions, weighing > 1,700 g, with an increasing weight gain and a good sucking pattern. Admission to the NICU is usually an anxiety time in which the NI and her/his relatives are kept away, due to the need for immediate clinical care, generating feelings of contact loss and lack of information. Separation, due to neonate’s admission to the NICU, makes parents feel sadness, fear, and stress, because they feel fragile and insecure with regard to their baby’s life. They report contradictory feelings, such as guilt, as they feel responsible for the child’s suffering, and, at the same time, they manifest hope and resignation. Nurses and nursing technicians are the professionals who spend most of the time with babies/users/patients and they’re responsible for direct care. Thus, for providing the patient and her/his family with care the nurse needs to understand the family unit, what critical illness means for the family members, the way they’re affected, and what are their biggest needs.

Family’s inclusion into the hospital environment, taking into account its rights and duties, has required a reframing in the nursing care dynamics, in which, besides an integral care for the NI, it also becomes a must drawing attention to the family needs, thus developing a care proposal focused on the binomial child/family. This requires from the health professionals meeting not only the clinical needs, but also emotional, affective, and social, something which, while allowing a more comprehensive care, requires changes in the ways of caring for the hospitalized child.

Studies indicate as some obstacles in the working process of a NICU the human resources management and the physical space. As a result of the presence of a few professionals and many patients, the care required by family members following up the baby’s hospitalization shows to be impaired due to the short available time.

Having the above in mind, the following question was formulated: “How does nursing care for parents and the at-risk newborn infant take place in the neonatal ICU?”. To answer it, the general objective is analyzing the nursing care for parents and the at-risk newborn infant in a NICU and the specific objectives are knowing nurses’ conception with regard to the importance of parents’ relationship with the at-risk newborn infant; verifying how the nursing care aimed at parents and the at-risk newborn infant takes place; and describing the strategies used by nurses for including parents into the at-risk newborn infant’s context.

Thus, this study takes into account the relevance of NICU by providing the specific care needed for a healthy development of the at-risk newborn infant and highlights the importance of care provided by the nurse.

METHODOLOGY

This is a descriptive study with a qualitative approach. The chosen setting was the NICU Maria Clara, located at Casa de Saúde Dix-Sept Rosado/Maternidade Almeida Castro, in Mossoro, Rio Grande do Norte, Brazil. It’s the only NICU in the town. The initial population were the 5 nurses working in this NICU, but 1 of them refused to participate, thus, the subjects were 4 nurses working in that service. For validating the population and sample, the inclusion criteria of the study were: being included into the professional staff of the NICU; having at least a 6-month experience in the NICU; agreeing to participate in the research.

Data were collected through a semi-structured interview script, recorded, and later on transcribed. Data were analyzed using the Collective Subject Discourse (CSD), which consists in selecting in each individual answer to a question the key expressions, the most significant excerpts from these responses. These keys expressions correspond to the
main ideas, a composition from the discursive content manifested in these expressions. With the main ideas one constructs synthesis discourses in the first person singular, which are the CSDs, where a group’s thought appears as if it was an individual speech. Data were exposed in synthesis figures and discussed under the pertinent theoretical framework’s light.

For carrying out this study one observed the precepts of Resolution 196/96, from the National Health Council, which provides for the guidelines and regulating rules of researches involving human beings. The research was approved by the Research Ethics Committee of Faculdades Nova Esperança, under the Protocol 122/2010 and the CAAE 3315.0.000.351-10.

### RESULTS

<table>
<thead>
<tr>
<th>Participant</th>
<th>Length of time working at the NICU</th>
<th>Length of time working as a nurse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse 1</td>
<td>2 years and 8 months</td>
<td>9 years</td>
</tr>
<tr>
<td>Nurse 2</td>
<td>2 years and 6 months</td>
<td>4 years</td>
</tr>
<tr>
<td>Nurse 3</td>
<td>3 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Nurse 4</td>
<td>10 months</td>
<td>10 months</td>
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</tbody>
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Figure 1. Subjects’ characterization.

The participants were working at the NICU Maria Clara between 10 months and 3 years and their time working as a nurse ranged from 10 months to 9 years. It’s believed in this study that the time working at the NICU favors professionals’ awareness with regard to the development of strategies which include parents as participants in the care for the at-risk newborn infant.

Regarding nurses’ belief that the contact of the at-risk newborn infant to the mother favors a satisfactory therapeutic evolution, they were unanimous in stating that this contact is a therapeutic strategy (Figure 2).

<table>
<thead>
<tr>
<th>Central Idea</th>
<th>Collective subject discourse</th>
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</thead>
<tbody>
<tr>
<td>Direct contact</td>
<td>The touch issue is very relevant, when the baby feels the mother’s touch, her presence, maternal warmth, when the mother talks, we realize it. There’re babies undergoing a very severe condition who we think that won’t survive, who doesn’t move anything, helpless, indeed, and when the mother starts holding, caressing, as in very interesting cases, as if it was a miracle the baby starts moving, when the mother talks and touches her/him. It’s like she/he felt protected, cherished, supported. This intimate contact between mother and child is favorable to baby’s recovery and it brings benefits, then, when the mother has a direct contact to the baby, she/he presents a satisfactory improve in her/his clinical condition. When she/he’s agitated, the mother arrives, talks, and she/he immediately calms down. We encourage her to talk to the baby, because there already exist studies which prove that the baby hears, and it’s a stimulus for her/him.</td>
</tr>
<tr>
<td>(1) Guidance for parents</td>
<td>By the time when the baby is admitted, we start informing how the service routine is. Parents realize our care, but when they arrive and are faced with that amount of equipment, they get scared, then, we end up making them calmer; when informing, we explain in detail the reason why each thing is done, the function of each device. We also inform about the baby’s clinical condition and we’re always encouraging, depending on the baby’s clinical stability, the parents to touch, to handle.</td>
</tr>
<tr>
<td>(2) Contact to parents</td>
<td>Insofar as the baby gets better, we already start putting the baby in her/his parents arms, we encourage parents to caress the baby, even to put the baby in mother’s breast or provide the syringe so that the mother administers the diet, informing how to care for the baby at home, always providing parents with an expectation, saying if the baby is recovering or not. We don’t establish a time for the parents’ visit, only at night we ask to come only until 10 p.m., but, sometimes, there’s a mother breastfeeding, then, we let her breastfeed until the time she wants to.</td>
</tr>
<tr>
<td>(3) Kangaroo Mother Method</td>
<td>Babies whose parents are following up, who are more present, have a faster recovery, even the issue of contact, which has been proved through studies on the importance of the Kangaroo Mother Method. This method is introduced here, at the neo ICU, when the baby is clinically stable, the baby isn’t connected to the devices, she/he’s already able to breathe on her/his own. When the baby is able to be discharged from the ICU, she/he goes to the nursery or the rooming-in care, where the second step will take place, because when leaving the neo ICU, they have a very low weight and can’t go home. And the third step takes place after discharge.</td>
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Figure 3. Central idea and collective subject discourse regarding the question: “What are the strategies used for getting parents closer to the newborn infant at the neonatal intensive care unit?". 

English/Portuguese

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<table>
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<tr>
<th>Central Idea</th>
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<tbody>
<tr>
<td><strong>(1) With fear and hesitancy</strong></td>
<td>At the onset, they have a bit of fear, hesitancy, especially when the baby is premature. We realize that the visit is very short when they come for the first time, they look at distance, then, when we try getting closer, they gradually lose that fear, they take away doubts, and we try to remove this hesitancy, this fear.</td>
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<tr>
<td><strong>(2) Collaborate to care</strong></td>
<td>They behave very well, because it involves the issue of trust, we encourage the mother so that she talks to her baby, then, parents understand this care as an exchange, it’s as if she was also caring for, she thinks: “I haven’t studied, I didn’t go to college, I don’t know the importance of mechanical ventilator nor that of these devices, but I’m the mother, so, I’m also included in this care”.</td>
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<tr>
<td><strong>(3) Respect for beliefs</strong></td>
<td>We guide mothers who have beliefs, such as a Catholic or Evangelical mother, so that she prays with her baby, there’re mothers who sing to the baby, we ask them to talk to their baby, because the baby knows her/his mother’s voice and she/he needs to hear her voice.</td>
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Figure 4. Central idea and collective subject discourse regarding the question: “How have parents behaved when faced with these strategies?”.

**DISCUSSION**

Through the speech in Figure 2 one can notice, under the light of literature, that the mother-child affective ties start developing during pregnancy, long before birth. For mother and the newborn infant, it’s after birth that a reciprocal interaction begins and this attachment is strengthened from time to time. Since attachment is the affective bond established between parents and children, it’s essential for children’s development and it can be expressed by means of the senses.9

The “look” isn’t enough to construct attachment, there’s a need for touching, caressing, in short, meeting the baby and her/his reactions by touch, and this is a way of making closer the mother-child binomial during hospitalization, decreasing anxiety.10 Studies carried out have proved that the mother-child relationship with mothers who develop a greater interaction with the neonate, such as touch, look, smile, and vocalizations, provoked more child’s responses, evaluated through limb movements and eye opening, than with less interactive mothers.11

Having in mind the benefits of this getting closer of the mother-child binomial, and with the advancement in neonatal researches, it was found out that the premature and at-risk newborn infants are able to see, hear, smell, and respond to touch. When stimulated, they respond to handling and show up nice.12 The mother-child relationship is the psychological factor most sensitive to the therapeutic intervention and the prophylactic intervention, thus deserving a special attention. The psychological influence can occur before and after childbirth, addressing the possibility of an interaction between genetic and environmental influences occur before childbirth.13

Through the speeches in Figure 3, one realizes that there’re several ways to approach this family within the NICU and, in most cases, this getting closer must come from the professionals themselves, who should use an effective communication and follow up the parents during visits to the NICU, offering them comfort, clarifying their concerns, and encouraging them to touch the NI. There’s a need, above all, for including parents into care for the child, demonstrating the importance of their presence within the unit, promoting the establishment of attachment between parents and child.14

It’s important that parents see their children as soon as possible, and they must be prepared for this moment; the nursing team explains what will be seen (monitors, tubes, catheters, the child’s condition) and informs about the meaning of everything, in order to avoid increasing the feelings of fear and shock.15 Information and guidance on the treatment and therapeutic evolution of children should be given in a clear, truthful, and sensitive way with regard to the child’s needs, and these are crucial in effecting communication, transmitting confidence and gaining parents’ trust. These capture the minutest emotional movements of the team (quiet or stressed smile, anxiety, excitement, and others), thus taking conclusions about their children’s health status. This way, it’s crucial to express confidence, calmly telling the truth. Thus, an effective communication allows parents to participate in possible decisions with regard to the conducts with their child.11

This sudden separation leads parents to linger a while before being able to touch the child, because they state being afraid and it’s difficult to interact with the child at risk of death, something which causes great suffering. This interaction between parents and hospitalized children improves after a few days, when the life prognosis becomes more ensured.11

Hospitalization in a NICU promotes an emotional imbalance of the newborn infant and her/his parents, establishing a stress situation. This way, this imbalance generates conflicts, anxiety, and worsens the parents’ guilt feeling, making more difficult the understanding on the importance of their presence in their children’ hospitalization process. The neonate’s recovery doesn’t...
depend solely on the care provided by the medical and nursing team, but also on the presence of their parents, the care procedures, and the affection received from them.\textsuperscript{15}

Some ways for promoting the interaction between parents and child are: allowing parents to participate in simple care procedures, such as changing the diaper, and teaching the mother to stimulate sucking, making them feel important collaborators in the child’s recovery, making them active subjects in their child’s health recovery process.\textsuperscript{10} When parents and children are away from each other, they feel anxious and sensitive up to the point of not being able to touch their newborn infants. Studies proved to be one of the most stressful factors for parents losing their function or relation to their child.\textsuperscript{16}

For this reason, parents should be encouraged to touch and hold their child in the arms, in order to get them closer and make visits to the ICU motivating and favorable to the family bond.\textsuperscript{10} Regarding the speeches referring to the Kangaroo Mother Method (KMM), it’s worth clarifying that this method was created through the need for incubators in the nursery for individual use and excessive premature newborn infants; neonatologists Edgar Rey Sanabria and Héctor Martinez Gómez, physicians at the Children’s Medical Institute in Bogota, Colombia, observed that the kangaroo is prematurely born and it remains in the mother’s pouch until the gestational period is complete.\textsuperscript{9}

Thus, the neonatologists invited the premature babies’ mothers to stay at the NICU and keep their children close to their body, skin to skin, 24 hours a day, so that they could provide the heat required for maintaining the body temperature of these newborn infants; this also contributes to decrease the infection rates; these premature children gained weight faster and they had less problems, such as apnea and bradycardia.\textsuperscript{9}

The MMC generates many benefits for the mother-child binomial, such as: greater attachment between mother and neonate, faster body weight gain, earlier discharge, and increased mother’s milk production. It also plays a very important role in the mother’s physiological and emotional status, because she feels safe with such a close presence of her child and collaborates to the improvement of her/his clinical condition.\textsuperscript{11} This way, studies already carried out have proved that preterm and at-risk newborn infants who received visits and stimulation from their parents more frequently presented a lower frequency of apneic episodes, gained weight faster, and showed greater integration in some functions of the central nervous system than preterm newborn infants who didn’t receive this stimulation.\textsuperscript{11}

When a couple decides to have children, they dream of a perfect baby, healthy, thus constructing images, dreams, and hopes around this so precious “being”. The birth of an ill child, with some deformity or congenital defect, or a very small and fragile premature baby, brings disappointment, a feeling of inadequacy, guilt, and fear of loss, undoing this dream. In face of the premature birth of a child or the anticipation of biological birth, the parents suffer due to an early physical separation, mainly imposed by the child’s clinical condition.\textsuperscript{17} Thus, one way through which the nursing team can promote the interaction between mother and child is allowing the mother’s free access to the NICU, being able to touch and caress her baby, even without holding her/him in the arms. Another way is promoting conditions so that the mother participate in the care procedures which the child is provided with, such as offering the opportunity to the mother for changing her baby’s diaper.\textsuperscript{12}

When asked about how parents have behaved in face of these strategies, the collective subject discourse presented 3 central ideas, as shown in Figure 4: the parents behave with fear and hesitancy, others collaborate to care. Insofar as the newborn infant stabilizes her/his clinical condition, the health professionals should encourage parents to gradually take care of their child.\textsuperscript{10} The birth of a seriously ill child usually causes deep changes in the family dynamics. The parents of seriously ill newborn infants undergo a mourning stage after the child’s birth, due to the fact she/he isn’t the healthy child they were waiting for.\textsuperscript{11} At this moment, the nursing team plays a key role in care, not only with regard to the newborn infant, but with regard to parents, supporting, listening to, in order to reduce their anxiety and fear. A meeting between parents and babies should be encouraged, observing each one’s individuality.\textsuperscript{18}

Therefore, the mothers’ lack of knowledge with regard to their children’s clinical condition leads to the need for faith in God and to conformation to the circumstance, making it difficult to understand reality, resulting in a mixture of helplessness and anguish. At the moment of weakness, sadness, and anguish caused by the admission of their child to a NICU, they intensify the search for God, in order to keep hope alive. At difficult
moments, the human being tends cling to culture and faith, in a relentless pursuit of strength.19

Given the above, one can observe how important the parents’ presence is important for the recovery of neonates, besides the nursing team’s participation, supporting and encouraging this getting closer.

**FINAL REMARKS**

Nurses at the NICU Maria Clara believe that parental contact is important for the at-risk newborn infant recovery. Indeed, the care and getting closer are provided by nurses as soon as possible, concomitantly with the guidelines for care at the NICU and at home, after discharge. Besides the guidelines, they use the promotion of contact and KMC as strategies for getting parents closer to the newborn infants. As results from this strategy they refer satisfaction and parent’s behaviors, ranging from hesitancy and fear to search for help on religious beliefs. It was found out that nursing care is of great importance for the proper functioning of the NICU, because nurses are the professionals who get closest to the parents and children, encouraging the bond between them.

Given the above, one believes a receptive and welcoming environment promoted by the health professionals at the NICU is of great importance, in order to minimize at most the separation and strengthen the emotional ties. This environment can be set up through meetings with parents and the multidisciplinary team, sharing experiences and providing psychological support. One suggests the use of relaxation measures, such as music therapy, at the time preceding the visit, since music is regarded as a way through which the individual can express what she/he’s going through within her/his inner self.

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