Original Article

GESTATION, DELIVERY, BIRTH AND HOSPITALIZATION OF NEWBORNS IN NEONATAL INTENSIVE THERAPY: MOTHER’S REPORT

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ABSTRACT

Objective: to describe the trajectory of the delivery, birth and hospitalization of the newborn in a neonatal intensive care unit.

Method: a qualitative research developed with 25 mothers of newborns hospitalized in neonatal intensive care. The data collection was carried out in the months of August to October 2014, through a semi-structured interview, addressing prenatal issues when the baby was hospitalized. The data were submitted to a thematic content analysis.

Results: the trajectory pointed to complications in the pregnancy, unplanned gestation and non-attachment to the professional with whom they were caring for in the prenatal period; the need for displacement for the childbirth and birth conditions revealed an important impact on the mothers’ experience.

Conclusion: it were characteristics of the trajectory of these women the late onset of the prenatal care and the fragility of the bond with the professional who performed the prenatal care. In addition, the difficulty of access to health services for the childbirth culminated in the impact of a risk birth and hospitalization in intensive care.

GESTACIÓN, PARTO, NACIMIENTO E INTERNACIÓN DE RECIÉN NACIDOS EN TERAPIA INTENSIVA NEONATAL: RELATO DE LAS MADRES

RESUMEN
Objetivo: describir la trayectoria del parto, nacimiento e internación del recién nacido en la unidad de terapia intensiva neonatal.
Método: investigación cualitativa desarrollada con 25 madres de recién nacidos internados en terapia intensiva neonatal. La recolección de datos se realizó en los meses de Agosto y Octubre del 2014 por medio de entrevistas semiestructuradas sobre asuntos del prenatal hasta la internación del bebé. Los datos fueron sometidos al análisis del contenido temático.
Resultados: la trayectoria mostró complicaciones en la gravidez, gestación no-planeada y la no vinculación con el profesional con el que estaba realizando el prenatal. También, la necesidad de traslado para el parto y condiciones del nacimiento rebelaron un importante impacto en la vivencia de las madres.
Conclusión: las características de la trayectoria de estas mujeres fueron el inicio tardío del prenatal y la fragilidad del vínculo con el profesional que realizó el prenatal. Además, la dificultad de acceso a los servicios de salud para el parto culminó con el impacto de un nacimiento de riesgo e internación en terapia intensiva.


INTRODUCTION
The birth of a child is characterized as a remarkable moment in the life of women/mothers, because it represents the transition from the role of the woman, who now has the role of a mother. This event occurs through the childbirth, which is a process that causes fast and intense physiological and psychological changes in the woman, allowing the child to leave the mother body to come to the world. 

This moment requires care during the delivery and childbirth, which is based on the principles of humanization. In this logic, the Program of Humanization in the Prenatal and Birth (PHPB) was created by the Ministry of Health, whose objective is to take care of women’s health, from the singular period of pregnancy until he childbirth and the puerperium, as well as the child’s health.

However, sometimes the childbirth may be followed by complications that may lead the newborn (NB) to need intensive care. Among the most common, it is possible to mention the neonatal anoxia and respiratory disorders related to prematurity. These intercurrences directly interfere in neonatal and infant morbimortality rates.

The infant mortality rate is an indicator that broadly reflects the conditions of socioeconomic development and environmental infrastructure, as well as access to and the quality of available resources for maternal and child’s health care. The improvement in this indicator was significant since, in 2000, the estimated infant mortality rate in Brazil was 29 deaths per 1000 live births and, in 2015, it was 13.82 deaths for 1000 live births, representing a decrease of 48.2%. However, there are inequalities in relation to the Brazilian states, for example, Amapá stands out with a child mortality rate of 23.5, followed by Maranhão (22.4) and Alagoas (20.9). The lowest rate is that of Espírito Santo (9.2), Santa Catarina (9.5) and Paraná (9.7), respectively.

Cohort, on neonatal mortality in the Survey Born in Brazil, showed that the deaths were concentrated in the Northeast (38.3%) and Southeast (30.5%) of the country, among premature and low birth weight infants (81.7% and 82%). The Southeast, Midwest and South regions had the highest proportion of preterm deaths. The extreme prematurity represented 60.2% of deaths and very low birth weight 59.6%, with higher proportions in the Midwest and Southeast regions.

A research carried out in Southern Brazil found that among the neonates hospitalized in a Neonatal Intensive Care Unit (NICU) in a five-year period, 54.5% were preterm and 63% had complications at birth due to respiratory causes. It is also considered that the prematurity was the main cause of mortality of neonates in this NICU and the cause of hospitalization in 54.1% of births.

The improvement of the infant and neonatal morbidity and mortality rates is directly related to the creation of specific public policies for the health of the mother and the newborn. The Stork Network (“Rede Cegonha”) should be highlighted, which is a strategy focused on the principles of humanization and care, with which women, newborns and children have the right to the widening of the access to health services, to prenatal care and quality, to transportation to carry out the prenatal care and delivery, to a link between the pregnant woman and the reference unit, to a safe birth and delivery, to an accompanying person at the delivery, to child health care from 0 to 24 months and access to a reproductive planning.
The hospitalization and specialized treatment represent a challenge for health professionals, especially for the NB and their parents. Adequate care planning and infrastructure is required for at-risk NBs. The NICUs are indispensable for the survival of high risk newborns, but high hospital costs and developed sequelae show that prevention is the best option.9

The nurse, as a professional committed to health promotion, must invest in best practices for the embracement of pregnant women, for a quality prenatal care follow-up, contemplating the health needs of the mother-baby binomial. In this purpose, it is believed that the pregnant woman must be adequately cared for, minimizing the health problems of the newborn and providing quality care to the mother and to the newborn.4

In this context, it was questioned what happens from the prenatal follow-up to birth that justifies the fact that a baby who, a priori, should have been born healthy (healthy gestation low risk) needs to be admitted to intensive care? Thus, this study aimed to describe the trajectory of delivery, childbirth and hospitalization of newborns in a neonatal intensive care unit.

METHOD

A qualitative research developed with 25 women who had their children hospitalized in a NICU of a teaching hospital of medium size and high complexity, a reference in southern Brazil. The service has 18 beds, distributed between high risk (beds 1-10) and intermediate risk (beds 11-18), of which three are for external patients or those in need of isolation.

The selection criteria for participation in the research were: mothers of NBs hospitalized at the NICU who reported having undergone the prenatal care in the initial approach of the researcher. This is a self-declared information, only as a selection criterion. The pregnant women’s card was not checked, because this self-declaration of prenatal care was also part of the analysis. Given the prerogative to be a NB, initially healthy, women who were not under follow-up at a high-risk prenatal of the institution of the reference institution for the macro-region were selected.

On the visits to the NICU, the mothers who met the selection criteria were invited to participate in the study and, upon acceptance, the interviews were conducted by the main researcher, in a reserved room, within the NICU. The interviews were recorded in digital devices with the prior authorization of the women, having an average duration of 20 minutes.

The data collection was carried out between August and October 2014, through an interview, using a semi-structured script, addressing, among others, questions related to the prenatal care, delivery, childbirth and hospitalization of the NB in the NICU. Afterwards, the double transcription was performed in full, and then the empirical material, corpus of the research, was submitted to content analysis of the thematic type.

The thematic analysis is defined as the discovery of the sense nuclei, which constitute communication in which the frequency of words and expressions has some meaning for the analytic object. Operationally, the thematic analysis unfolds in three stages: the pre-analysis, the exploration of the material, the treatment of the obtained results and the interpretation.10

The empirical material of the interviews was organized in an analytical chart, in whose columns were the participant, the interview and the statement. In this chart, the reading and identification of the units of meaning were done through the chromatic coding, according to the themes found, highlighting the units of meaning according to the objectives of the study, giving rise to two thematic categories: Complications in the pregnancy, trajectory until delivery and childbirth conditions and the Impact of the hospitalization of the newborn child in the NICU.

For the development of the research, the recommendations of the Resolution 466/2012 were followed. The research was approved by the Research Ethics Committee of the Federal University of Santa Maria (UFSM) under the CAAE number 31103114.2.0000.5346. The two-copy consent term was used, one for the participant and one for the researcher. For women under 18 years old, the term of assent was used, which includes the signature of the responsible person in charge. In order to preserve the identity of women, the letter M, referring to mother, followed by ordinal numbers, was used in the sequence in which the interviews were conducted.

RESULTS

The research participants were 25 women, most of whom were between the ages of 16 and 39, white, who had elementary education, were married and/or living in a stable union. The family income
ranged from R$ 545.00 to R$ 1635.00, and only eight of them worked formally. Among the participants, one was a smoker, two rarely consumed alcoholic beverages, and the totality denied using illicit drugs.

Regarding the gestational data, 11 of the participants were primigravidae, and five have already had some kind of abortion. The prenatal consultations ranged from three to 14, with 18 having their first consultation in the first trimester of gestation and seven in the second trimester of gestation.

The RNs totaled 26, with a case of twinning, of which 19 were male. As to the type of delivery, 19 were born by caesarean section. The gestational age at birth ranged from 23 weeks and 5 days to 41 weeks, with 14 being born between 37-41 weeks. The main causes of hospitalization in the NICU were the respiratory distress syndrome and prematurity. It should be highlighted that some newborns received more than one medical diagnosis at the time of admission.

Next, the categories that emerged from the thematic analysis of the interviews regarding the trajectory of delivery, the conditions of the childbirth and the hospitalization in the NICU will be presented.

Complications in the pregnancy, trajectory until delivery and childbirth conditions

The non-planning of the gestation was reported by most of the study participants, especially among adolescents: Oh, I was terrified. Because it was not as they say. It was not planned, but then I was happy, I liked it, I was assimilating it (M21). And then my sister, she looked at my stomach and said it was too big. Then she asked me to take a pharmacy test, I did it and it was the day I found out that I was pregnant (M14).

The lack of information regarding the pregnancy planning as well as the onset of the prenatal care is identified: It was a planned pregnancy, right, I stopped taking the pill [contraceptive]. (Mother 1). It was in March, I was 12 weeks (M2). Oh, I was about four months already (M7). I was three months pregnant I was (M13). It was two days before I had this ultrasound that it appeared with twenty-one weeks (M15).

One of the participants discovered the pregnancy at three months and only had the first consultation at six months of gestation. As for the time when they had their first prenatal visit, it ranged from four weeks to 21 weeks.

The attention provided to the prenatal care is relevant regarding the reduction of the neonatal maternal morbidity and mortality and premature births. The importance of initiating the prenatal care in the first few weeks, a time when there are several changes from the embryo to the fetus. Having performed the prenatal care as recommended by the Ministry of Health was an initial criterion and is included in the original project, however, during the data collection it was altered, since it was noticed that the women reported having undergone the prenatal care in the same way they reported having planned the pregnancy only because they had stopped taking the contraceptive pill, for example. So this became a factor of analysis and the number of queries was not considered.

The fragility or non-attachment to the professional with whom the woman was performing the prenatal care was one of the factors that interfered with the continuity of care: He [the doctor] would check the pressure, would do the examination on the belly, the touch, made the tape, the one to see how many centimeters it was and the pressure was always normal (M2). It was with the nurses [the prenatal]. Oh, it was the same as always, talking seems like something we do not know. They keep on talking, and then go to a room to hear the baby’s heartbeat, but it takes too long, it’s very time-consuming (M8). They would measure belly, listen to the heart that is what they would do. Only in the last few months did they take that touch exam, you know (M9). She just examined me, felt for the uterus, asked for tests. Then in the next consultation yes, the folic acid was prescribed, they requested the blood tests, HIV, hepatitis, everything that is communicable. The tests were okay (M17).

The attitudes of the professionals are not understood as something important or that made sense to them.

As for the path taken by them to give birth to their children, we have the following statements: I called the mother to stay with me, then the mother said something is abnormal because the pain was every 10 minutes, we looked for a health unit [...] then they referred me here [reference hospital], because I was already in labor and with dilation, but he could not be born normal because she was sitting (M1). My water broke in the morning, then I went [closest city], I stayed there to do the exams, all the doctor examined me. As my water broke and I did not feel any more pain, he sent me here to be able to deliver because the hospital must have had a UTI for the baby […] They did the exam and sent me to the room, they [doctors] ran exams hourly, on Sunday they performed the cesarean section at 30 weeks and a few days (M2).

For M7, the path included the displacement of another municipality 80 Km distant: We came from

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the hospital of [name of the municipality] [...] there, the other doctor [...] performed the touch exam and I had four fingers of dilation and the water had broken at home. Then he sent me here (M7).

Still on the displacement, it is seen that it continues, even after the birth of the baby: It [labor] was induced, with 39 weeks. Because at first I wanted it to be a normal birth, because my first one was. Because I was sure it would be all right with the second as well. Then I got to the hospital at 07 and 35 on the 9th I was given serum. Nine and forty-five the water broke, from there I went to the delivery room. Then they called the doctor, who said that the newborn had a cord around her neck, there was no time for a cesarean, we had to get her to be born. Then we had to come here [reference hospital 64 km from the city of origin] because she had a respiratory arrest (M25).

The research was performed in a hospital that receives many cases of intercurrences during the gestation, being a reference for the central region of the state, since it has a neonatal intensive care unit. In some situations, the delivery is performed in the mother’s city of origin, but the NB, due to their need to specialized care, is transferred to a reference NICU.

Some participants lived in cities inside the state, often without many resources, being usually assessed by attending physicians who are general practitioners. This made the situation even more distressing for these women. This is a time when they felt unsafe about the situation, with the possibility of transferring to another city.

Regarding the choice of the type of delivery, the risk situations were determined by deciding the need for a cesarean section, as follows: My water broke at home [...]. Then I arrived [...] at dawn, they did the exams, they listened to the little heart and they saw that he was a little too calm, then they moved me to cesarean section (M4). That was when they diagnosed diabetes, pre-eclampsia and from there I was told that I was going to have a Cesarean section (M5). Labor started in the morning, I was trying a normal delivery. But then the baby’s heart rate started to decrease. Then I had to undergo a cesarean (M16). I was admitted here, [...] then I got to the ultrasound and they scared me, because she said that the baby was completely without water. And then I heard the news that I was going to have the cesarean that afternoon. (M20).

The reports indicated that the clinical conditions of the baby and the mother determined the type of delivery. Thus, the cesarean was prevalent in these cases because it was a delivery in situations of risk, and the woman had no participation in the decision process, imposing risk childbirth to preserve the lives of both mother and child. As for the moment of delivery, the women stated: It was okay, it had to be quite fast, but it was easy (M4). My reaction was calm because she [doctor] gave me all the information (M5). I almost died. They say that I was all blushed, because I could not take more pain than I felt. And I would go under the shower and come back, and they asked me to do a massage, I could not sleep (M12).

Even in the face of risky situations during parturition, women reported that they considered delivery easy.

Regarding issues related to childbirth, the participants stated:

I felt a lot of pain, a lot of pain all the time. In the cesarean section, I do not know why, but also the anxiety because I knew he could not resist due to the weeks of gestation. I was in shock. It was cruel (M22). The doctor wrote down two previous cesareans, which could not be a normal birth. So they admitted me to the cesarean because they knew I would have a normal birth (M24).

Due to complications during labor, some of these mothers were traumatized by the birth process. For them, at that moment, the main thought was the well-being of the newborn, regardless of the pain they were feeling. In one of the reports, the mother experienced during the birth the possibility of death of her son, due to the seriousness in which he was. Some mothers were still unaware of the information that the pregnancies may present in different ways and that there are risks, even if the pregnancy has not had intercurrences.

Impact of the hospitalization of the newborn child in the NICU

The impact of the hospitalization of the NB child in the NICU was stated by the participants: He was having a hard time breathing on his own. (M3). When they did the glucose test and it was already going down (M5). Because of the esophagus, the doctor explained that he had a deviation (M9). Because she was underweight (M14). Because she was yellow (M16).

The reasons that required the hospitalization of the NB in the NICU were diverse and, depending on the problem, it was a quick hospitalization, which reassured, to a certain extent, mother and family. Some of these NBs were already in the maternity ward with the mother and needed to be transferred to the NICU.

Regarding the moment when the women heard of the need for the child’s hospitalization in the NICU, the following testimonies follow: After
he was born [...] (M4). At moment I was hospitalized, I was already notified [...] (M6). It was on the second day of his life, it showed on the exam that he was yellowish (M10). At the moment he was born, because he did not cry (M24).

Some mothers were informed of the need for the baby to be admitted to the NICU at the time of the birth of their child, while others had previously been informed because of the intercurrences during pregnancy, especially when it was interrupted.

Upon learning of the need for the child’s hospitalization in the NICU, the mothers reacted in several ways, as follows: It was quite complicated, since I had been through this before (M3). When I saw him all full of apparatus and stuff, he had to be intubated, I was very desperate (M7). I was desperate (M18). I was pretty scared (M20).

The mothers knowing that their children would have to go to the NICU, reported despair, fear and sadness. One of the mothers reported that she had already had another child hospitalized in the ICU, so she was fragile and insecure about her son’s life. Some mothers feel guilty about seeing their children in this situation, being accompanied by anxieties and afflictions.

Regarding the need for the early separation between mother and baby due to the NICU admission, they reported: He stayed a few minutes with me, then they decided that he had to go to the ICU (M4). When she was born she went to the warm crib and the girls told me she was having trouble breathing [...] then I went to the room (M5). I had not seen at the time [...] he was born, then they took him so quickly (M12)

Situations that made it difficult to begin the bonding of the participants with their children can be perceived, due to the early separation and to their clinical instability.

**DISCUSSION**

The planning and/or desire for a gestation are not synonyms, but the intention is directly related to the personal context. However, the reproductive planning is situated in the behavioral setting, because it adopts measures centered on the conception and it will only exist to the extent that there is desire and/or intention.\(^\text{11}\)

The prenatal care, in turn, aims to reduce maternal and fetal morbidity and mortality. This reduction depends on both the care received during the gestational period and the care received at the time of delivery.\(^\text{12}\)

Brazil presents high rates of cesarean section as a public health problem, with the prevailing idea that the responsibility for the increase of cesarean sections belongs to professionals and that the Brazilian women prefer vaginal delivery.\(^\text{13}\)

A study carried out in 2014 shows that in São Paulo, the cesarean rate exceeds 40%, being even higher in private services, which reach 88%, which makes Brazil one of the countries with the highest cesarean rates.\(^\text{14}\) Cesarean sections should only be performed when the vaginal birth puts the health of the mother and the baby at risk, it is an alternative that can be preventive or when complications arise during childbirth. However, in the international context, or in Brazil, in private health institutions, mothers may request a cesarean instead of a vaginal delivery, and the trend towards the elective cesareans is increasing.\(^\text{15}\)

Regarding the prematurity, a study carried out in Joinville/SC on maternal and neonatal characteristics associated with the neonatal ICU admission showed that preterm NBs represented 41.6% of hospitalized patients and a risk three times higher than term NBs.\(^\text{9}\)

Due to the care demands to women, the importance of a differentiated care is emphasized, considering that the moment of delivery is unique. A study carried out with women in Jordan on childbirth care in 2014 found that 75.6% of women were dissatisfied with the intrapartum care. These rates are similar in developing countries, and may be related to cultural aspects in the maternity care model.\(^\text{16}\)

It is also considered essential to welcome women in childbirth. Thus, it is essential to adopt strategies to publicize the advantages of the vaginal delivery, to offer educational activities about it in order to support the woman and her family in their decision on the way of delivery.\(^\text{17}\)

Thus, the cesarean section is a surgical procedure designed to reduce the risk of maternal and fetal complications during pregnancy and delivery, which, since it is not innocuous and entails implications and risks for the reproductive future of the parturient, it should not be performed in the absence of the medical indications described.\(^\text{18}\)

During pregnancy, the woman expresses ambivalent feelings and fears related to the childbirth. In Brazil there is a considerable increase in cesarean sections and there is a lack of guidance regarding the choice of type of delivery. Some factors may influence this decision, among them the social, cultural, economic, physical and psychological nature of women.\(^\text{19-20}\) In the case of the women in this study,
most of them were not able to participate in this decision-making process because of the risk situation they were in.

The characteristics of the trajectory of these women points to the need to look for care based on its humanization, including the notion of embracing, listening and communication skills. There is also a need for health services to develop strategies that guarantee the access and early admission of pregnant women in the prenatal care, considering the needs and uniqueness of pregnant women, in order to qualify the care to women in the pregnancy-puerperal cycle.21

In Brazil, the health care of the newborns has been influenced by the scientific development, translated by the various technological equipment, as well as techniques and procedures used in the care.22 Sequelae linked to morbidities can be often disabling and long lasting. When birth is anticipated, NBs are exposed to risks, either because of their physiological immaturity or because they are already suffering from intrauterine distress.23 A study carried out in Cuiabá/MT found that among neonatal deaths, the causes that were highlighted were less than seven prenatal consultations, prematurity and low birth weight.24

In preterm births, the NB sometimes needs immediate care in the delivery room before being referred to the NICU, and physical skin-to-skin contact with the mother is delayed due to the child’s conditions and institutional routines. This separation is usually complete on the first day and partial on subsequent days.25

From the moment they receive the news that their child will need specialized care in the NICU, parents are surprised by feelings other than those generated by the birth of a baby at risk. Then the despair, anguish and insecurity about the future that suddenly becomes uncertain and threatened by fear and guilt of leaving your child hospitalized in an NICU and not taking him home emerge.26

It is known that the contact between mother and child should be as early as possible, since it stimulates a series of physiological and behavioral events, contributing positively to both. In the case of hospitalization of the child in the NICU, this contact is compromised, and many doubts about the child’s survival are often associated with feelings of incapacity, guilt and fear.27

The hospitalization in the NICU inserts the NB in an inhospitable atmosphere where the exposure to stress and pain is common due to complex therapies. It is found that, at the bedside, mothers are frightened and curious when they observe the physical environment full of apparatuses and sounds, perhaps unknown. When they can see their children, however, their gaze turns to affection. This moment is of fundamental importance in establishing the mother-baby bond.28

CONCLUSION

The findings of this study highlighted as the main characteristic of the trajectory of these women, the non-planning of their pregnancy, the late onset of the prenatal care and the lack of connection with the professional who performed the prenatal care. Then, this trajectory was marked by the difficulty of accessing health services to safely deliver their childbirth and culminated in the birth of risk and its impact when these mothers were exposed to risky unexpected situations, and feared for the life of their child and their own.

The impact of the child’s hospitalization in the NICU brought suffering and sadness, restricting he direct and immediate contact with the mother due to the need for the NICU hospitalization, making it difficult to form bonds and the success of breastfeeding.

Implications for nursing and health practice include the need for health education since the conception planning, on the importance of the bond from the prenatal care and the right to receive information from health professionals about the conditions of their pregnancy and the probability of needing an intensive care unit service. The transfer, when necessary, must be carried out properly and quickly. This will bring peace of mind for the woman and her family and, at the same time, confidence in the team that is caring for her.

As limitations of the study it is pointed out that the research was performed in a scenario that exclusively meets the Unified Health System (Brazilian Public Health System); and still due to the emotional factor of the mother at the time of the interview being linked to the hospitalization of the child in the NICU.

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Received: February 16, 2017
Approved: September 12, 2017

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