Being a father of a premature newborn at neonatal intensive care unit: from parenthood to fatherhood

Ser pai de recém-nascido prematuro na unidade de terapia intensiva neonatal: da parentalidade a paternidade

Cómo ser padre de un recién-nacido prematuro en una unidad neonatal de cuidados intensivos: de la distancia del parentesco a la paternidad

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ABSTRACT

Objective: To understand the meanings given by the father to having a premature in a Neonatal Intensive Care Unit. Methods: Qualitative study with an ethnographic approach, carried out in a Neonatal Unit in Rio de Janeiro. Twenty two fathers whose premature children were in the intensive care unit have been interviewed. Data were collected with field logbook, participative observation and unstructured interviews. Results: The father has a fundamental role in the reproductive process, and protects women during pregnancy and postpartum. He also experiences high satisfaction with the childbirth, however, having a newborn hospitalized is an unexpected and difficult experience. Conclusion: Fathers evidently go through a social and cultural transition as to paternity, having timidly overcome the hegemonic model. At the same time, they understand their fundamental role as providers and showed a wish to be looking after their child. Health care professionals must facilitate this proximity to value paternity.

Keywords: Father-Child Relations; Paternity; Neonatal Nursing; Intensive Care Units, Neonatal; Hospitalization.

RESUMO

Objetivo: Compreender os significados atribuídos pelo pai ao ter um filho prematuro internado na Unidade de Terapia Intensiva Neonatal. Métodos: Estudo qualitativo com abordagem etnográfica realizado em uma unidade neonatal no Rio de Janeiro. Foram entrevistados 22 homens pais que tinham o filho prematuro internado. Os dados foram coletados por meio de diário de campo, observação participante e entrevista semiestruturada. Resultados: O pai desempenha papel fundamental durante o processo reprodutivo. Coloca-se como protetor da mulher na gestação e puerpério e vivencia intensa realização ao nascimento, mesmo que prematuramente. Entretanto, ter um filho prematuro internado seja uma experiência inesperada e difícil. Conclusão: Os pais demonstraram viver a transição social e cultural da paternidade, com superação ainda tímida do modelo hegemônico. Ao mesmo tempo, entendem seu papel fundamental de provisão financeira e demonstram desejo em cuidar do seu filho. Os profissionais de saúde devem proporcionar essa aproximação para fortalecimento da paternidade.

Palavras-chave: Relação Pai-Filho; Paternidade; Enfermagem Neonatal; Unidades de Terapia Intensiva Neonatal; Hospitalização.

RESUMEN

Objetivo: Comprender los significados atribuidos al padre que tiene un hijo prematuro en una Unidad de Cuidados Intensivos Neonatales. Métodos: Estudio cualitativo, de abordaje etnográfica, realizado en una Unidad Neonatal de Rio de Janeiro. Participaron veintidós hombres cuyos hijos prematuros estaban hospitalizados. Los datos fueron colectados por medio de diario de campo, observación participante y encuestas semiestructuradas. Resultados: El padre tiene un papel fundamental en el proceso reproductivo, además de proteger a la mujer durante el embarazo y después del parto. El también vivencia intensa realización en el nacimiento. Sin embargo, tener un prematuro hospitalizado es una experiencia inesperada y difícil. Conclusión: Los padres pasan por un proceso de transición social y cultural en la paternidad, con timida superación del modelo hegemónico, a pesar del entendimiento del papel de responsable financiero y del deseo de cuidar. Los profesionales de salud deben proporcionar tal aproximación para el fortalecimiento de la paternidad.

Palabras clave: Relaciones Padre-Hijo; Paternidad; Enfermería Neonatal; Unidades de Cuidado Intensivo Neonatal; Hospitalización.
INTRODUCTION

The presence and men participation of the pregnant-puerperal cycle, especially at labor, has gained international recognition since 1994, following the International Conference on Population and Development (ICPD) recommendation, developed at the city of Cairo (Egypt). A particular recommendation suggests that "special efforts should be made to emphasize men's shared responsibility and promote the effective involvement of men in responsible parenthood and sexual and reproductive behavior"1,34.

In Brazil, in 2008, the Ministry of Health2 launched the National Policy for Integral Attention to Men's Health, having as its main objective to promote health actions to cooperate for the understanding of male specific reality in their socio-cultural and political-economic contexts. It also aimed at bringing improvements to the health conditions of the male population by reducing morbidity and mortality through reducing risk factors and providing better access to health care services. One of the objectives of this policy is to stimulate the deployment and implementation of sexual and reproductive health care assistance, encouraging the participation and inclusion of men in actions for sexual and reproductive planning, including responsible parenthood2.

The City of Rio de Janeiro created the Movement for Valuing Parenthood6. It aimed at stimulating the creation of initiatives in different sectors aimed at increasing men's involvement in caring for their children. For such, it was made official that August would be the "Month of Valorization of Fatherhood," by Municipal Decree No 24083 from April 2nd, 2004. During every August, health facilities, schools and organizations that work with children, adolescents and their families, must develop activities aimed at the issue of paternity and the involvement of men in caring for children and adolescents6.

Several studies have reported that men and women take part in the family life according to gender references1,4,5 and that man, male and father are qualifications that define the way that one individual is inserted in the culture of which they are part of. The beliefs and expectations about the father's role in raising children has suffered major transformations in the last decades6-8. The concept of fatherhood has changed over time, reflecting the changes in the socioeconomic and cultural contexts of the societies that hold the patriarchal model centered on the male figure, therefore limiting the role of the fathers to family provider up to the multifaceted post-modern society with new formats of family6-8. Fatherhood involves deep chances in men's life, beginning even before the birth of the child and includes the acquisition of new roles and responsibilities besides strengthening the father-child relationship6-8.

Parenthood has been defined as the process of creation of feelings, functions and behaviors towards the performance of motherliness and fatherliness and was first proposed by the psychoanalyst Paul-Claude Racamier, who translated the English term motherhood into motherliness as an attempt to giving a more dynamic meaning to this concept6. He also adds the neologisms fatherliness and parentality. The practice of parentality refers to physical and psychological cares and daily tasks that parents perform towards the child. Motherliness and fatherliness are complementary functions that are developed in a cultural and family structure9.

The desire for a child starts in the childhood of men, and the pregnancy of their wife appears as a very important period for the consolidation of their male identity. During pregnancy, parents plan the birth period and the first contact with the newborn, always hoping for a healthy and at full-term birth. When the birth occurs prematurely, it is usually unexpected10. Thus, men parents usually are not prepared to see the birth of a premature in need for risky hospitalization. Prematurity is accompanied by a sense of frustration caused also by the separation of the mother, the father and the child11. Having a premature child requires more care and parents need availability to be with the baby in the maternity. Preterm birth can change the entire dynamics of the family routine and it is the right of the premature baby to have parents present 24 hours in the neonatal unit10,11.

The neonatal nursing care should be focused on creating an environment favorable for the care of premature infants. It should be free of harmful stimuli and ought to promote the development and minimize the negative consequences of the disease. The early involvement of parents and relatives in the care of the premature baby is essential for promoting affective bonds. Thus, it is extremely important that health care professionals provide proper assistance to the new father, in order to help them understand the factors that facilitate and hinder their participation in the care of their child12.

Few studies6,8 have been conducted on the process of becoming a father, the impact of fathers in the care of newborns and the effects of the father-newborn interaction in the long run. The new father brings an expanded conception that goes beyond their role of provider, and that it's related to affection and care to their child. In addition, the father is the first to enter the neonatal unit and to have contact with healthcare workers and their premature child. Thus, this study has as its goal to understand the meanings attributed by the father when having a hospitalized premature infant in the Neonatal Intensive Care Unit.

METHOD

It is a qualitative study with ethnographic approach. The classic method of ethnography is based one observing, listening and writing. These are the three stages to be followed to better understand social phenomena13.

The scenario was one intensive care unit that belongs to a public hospital in Rio de Janeiro. The choice for this maternity
The following thematic units were generated: Fathers during the reproductive process: from parenthood to fatherhood, the arrival of a baby brings many changes to each member of the family. From that moment on, they will need to take on new roles and responsibilities as for the child, the house and the family, which creates uncertainty. Thus, the arrival of a child involves redefinition of roles and reconstruction of the family and its members.6,10,12

The deponent below describes the preparation of the house facilities to receive the baby and the planning of strategies to conciliate work with performing the social role of father:

"...I've already bought a small desk to bring my computer to his bedroom. Here is the cradle and right past it is my desk. And I will spend around 5 hours working from home. Of course, not every Brazilian has the gift of working at home. It isn't possible. You do some work for a little bit, look at the child, hold them, give them a bath, feed them. Go back to work [...] (E3)."

All this change brought by pregnancy is experienced according to the group's culture which determines how the baby will be cared and received by the family. So, when the father gets news about the pregnancy, their attitude and planning are intrinsically linked to what they have learned in their culture. So will, at the psychic level, the way of caring, playing and feeding is pre-established culturally.12,15-17

From the psychic scope of fathers, the baby begins to exist from the moment of conception. The child becomes a part of the family, and the father starts to think about the baby's well-being, preparing the home and the family for the child's arrival. In this process, the father needs to redefine his roles and responsibilities. The preparation of the house is an important step in this process. The father must adapt to the new environment and plan how to conciliate work with performing the social role of father.
causes contributes to this construction. The ideas that emerge on how this baby will be, what features they will inherit from the father and which will receive from the mother, whether they are physical, behavioral or temper, they are all representation of the upcoming baby. So while the baby is being formed in their biological and body structure, they are also being thought about their individuality and their creation as an individual. This is the imagined baby.

Thus, the interaction with the baby begins before the birth. Fathers express the desire to be known by the child and how this is a big deal to them to the child. The possibility of interaction is by conversation and touches with the intrauterine fetus.

 [...] It’s since they were in the womb, I played a lot with the belly, so I talked, the way I spoke with them in the belly, I think they heard, right?! They could hear the mother and father together... Even so, They are human beings. It's already... how can I say it... It's already the child’s instinct being able to hear their mother and father and become more comfortable. Than not hearing the voice of any of these people who are fathers and mothers. [...] It is really important, in this perspective of the affinity that children develop with their father and mother, since pregnancy, [...] I caressed and kissed the belly. She felt the girls moving in her belly and such [...] (E1).

Currently there is a great parental involvement of fathers with their children during pregnancy. The involvement is expressed emotionally and behaviorally. This expresses changes in the paternity process since the gestation period is traditionally restricted to women.

However, this parental interaction during pregnancy and after birth doesn't occur with all fathers. It's not uncommon to watch resistance and difficulties of interaction and bonding between father and baby during pregnancy, as well as difficulties in participation in the care after birth. In this sense, it’s fundamental the stimulus brought by the health care professionals from different areas such as neonatal, labor, and puerperium period, so that there will be good interaction between the father and the newborn. Encouraging the presence of the father in consultations and perhaps in ultrasound exams is a way to promote the beginning of the father-child bond.

Pregnancy also predisposes men to feel fear and concern. However, these feelings can be positive once they convert to a situation of being more careful with the woman who is developing their child.

The men, in the process, often have attitudes and care behaviors with the pregnant woman, seeking their well being. This works as an initial strategy for the consolidation of fatherhood. This way, they will look after the pregnant woman so that she can develop the proof of they masculinity, that is their child.

On the care of pregnant women, a father reports his concern for the pregnant woman’s risk of high blood pressure, just as happened with the previous pregnancy of the couple:

 [...] And I said to her: honey, let's check your blood pressure, since you are right here, because we hit the road again, right, we will travel on Friday, it was a Thursday. [...] We have a device at home, she was taking medicine because she had already been showing signs of eclampsia even before. She came here, they checked her blood pressure downstairs and it was 170/130 [...] (E12).

The health care professional should identify difficulties in the transition to parenthood of in order to perform specific intervention, helping them, especially in the case of premature birth and need for hospitalization in NICU.

The hospitalization of a premature newborn becomes a crisis for parents filled with emotions. The experiences are diverse and complex.

The role of health professionals is critical to minimize the negative feelings experienced by fathers and to help them live the child’s birth experience, to have active listening attitudes to demystify fears and regrets, to inform about the usual procedures and involve fathers in the care of the child.

A study emphasizes the importance of the first visit moment of parents to their child hospitalized in the NICU, as an enriching time for the start of the nurse-family interaction, once usually they are first professionals to receive and support fathers in a way and affectionate way. Thus, nurses can recognize and meet the families’ needs, staying longer by their side.

The paternal itinerary during labor, delivery and birth at the health care service

The testimony below depicts the itinerary taken by the father at the time of labor and the pregnant woman's care in the health service:

 [...] She complained of pain, of what she was feeling. And the doctor arrived there and said that what she was feeling was just a virus. He prescribed some medication and we came back... But only after leaving the hospital, the mother was still complaining of pain. And I asked if she wanted to go back. And she didn't want. When it was 4am, she couldn’t bear the pain. Once again we went to the emergency [...] They said the hospital didn’t work with risky situations. They say it was premature baby. They refused to see her. And even said that she was dilating. So we left and then I managed to get a taxi and because of taxi driver’s instructions, we ended up here in this hospital [...] (E4).
The pregnant woman’s pilgrimage is still a common fact in health care services. In cases of obstetric emergency and risk pregnancy, the travel time to the hospital can increase the risk of neonatal and maternal death. In order to improve the service to pregnant women policies have been instituted and based on the principles of humanization and care, seeking the reduction of pregnant pilgrimage among Brazilian hospitals in order to guarantee access, hosting and resolution. However, if it weren’t possible having the father at delivery and birth, the health care staff, especially nurses, need to be responsible for providing information to the father and other family members about the event.

The fathers have reported no communication by the health care professionals about their so expected child:

[…] As for the birth here, I only learned that my baby was born at 8:30 am. But my baby was actually born at 6:42 am! No one came here to tell me! How is that possible? I was like, so extremely stressed… because it’s my baby! I wish I had watched the delivery! Okay, there wasn’t much time, it was an emergency, that’s alright, but let me know! No one was sent, they didn’t send a nurse, they didn’t send a doctor, they sent nobody to tell me, you know? And that makes any person upset. You see? I said some things to the director, to some people, because I have my rights! Don’t I? […] (E18).

It is important receiving well and granting the father’s access to the delivery if the woman consents it. For such, all health care professionals from the institution should be engaged to allow the father access as well as encouraging him to participate of it, talking about his fears and the fears of childbirth. This guarantee is part of the humanization of the delivery and childbirth.

Welcoming the woman’s choice of companion, without restrictions or obstacles to their presence and participation at delivery and birth is fundamental. It can also be stimulated that the companion be the baby’s father, emphasizing how important this is for both the couple and the father. However, it’s important to allow and respect the women’s choice.

Childbirth is a moment full of meanings to men. The fathers presence at the moment of delivery improves his interaction with his partner as it is understood as a desire for protection and care of the mother.

In terms of healthcare humanization, men have been considered the main actor in the conduction of childbirth. Their presence reflects the future relationship with their partner and their child, allowing a transition to fatherliness in an easier way. The emotional bond between father and child is essential when at the transition to fatherliness and the development of the premature. Accompanying the pre-natal consultation, helping the pregnant women in the preparations for the baby’s birth, reading about the newborn in development and participating in the labor can positively influence the emotional bond between the father and the newborn. The health care professionals should promote the involvement of the father in pregnancy and childbirth.

In a study conducted with fathers who accompanied women during childbirth, the fathers said it was important to be present in the first moments of the child’s life and felt pleased to take the baby in their arms and hear them cry. It They felt touched upon the birth and evidenced the father-baby bond.

Thus, the father’s presence at birth, accompanied by the health team, being well targeted and well received, can help future relationship with their child.

When it occurs preterm birth, all planning changes during pregnancy and fathers go through a moment of frustration:

[…] Usually, we always hope… Well, that everything is normal… nine months… that typical fantasy that everyone has. But when is a premature birth thing, precocious, I mean, everything we had planned, comes at short notice… it’s too much adrenaline. It’s all like that…! Nothing was like it had been planned […] (E4).

Understanding the experience of becoming a father in the neonatal intensive care unit reveals that the premature interruption of pregnancy is an unexpected event, unforeseen and difficult. It’s an experience that fathers never imagined they would live. They identified the concern and suffering brought by the changes in the journey previously planned. They also observed the feelings of guilt when fathers questioned themselves whether they failed to do something that would prevent the anticipated birth.

Similarly, in the statements below the fathers describe their reaction when they got news of having a premature infant in the NICU:

[…] It’s complicated. We never think it will happen to ourselves. We know what the baby is going through… and as much as we wanted him to be at home with us… we have to accept it […] (E5).

[…] What can we, right, this is life? But we put everything in God’s hand!! Only him has the verdict of all […] (E20).

Faith also aids their hope, which is indispensable to overcome this difficult moment of hospitalization. Even in the testimonies, fathers feel apprehensive and sought conform from religion. The confidence in God is demonstrated and is a way to put up with premature birth.

The man feels responsible for taking care of the woman in postpartum and puerperium period, and works for her good health. He finds himself in the role of taking care of the woman and the child. In Brazilian culture, men must be strong,
confident and have control of situations. They should not show emotions and weaknesses, despite experiencing conflicting and difficult times.

During this puerperium period, men often express joy and the concern. The fathers report the satisfaction and the their fulfillment in their children, despite the premature birth. They are proof of their masculinity, it is the moment of accomplishing the paternity and they embody the identity father. In the following statement the father also speaks of the concern for his woman and her health situation.

[...] Now as for the babies, for me it was joy. Because there are two of them. Even though they were born premature. But it had to happen, right? It’s very hard to have twins at the regular time. It’s very difficult. But as for me, I am satisfied, I am happy with them. [...] (E8).

In the postpartum period, there are many feelings, sensations and situations that happen to men and they could have consequences for the core family. The effects of the premature’s hospitalization for parents are complex and range from anxiety, feelings of helplessness, fear of the unknown. The man usually participates along with the woman of this moment. There is a need to assist and support not only the woman at the puerperium period, but also the man, granting them the opportunity to express their feelings and livings, helping them in the constructions of their new identities of mother and father. The puerperium is initially a moment of accomplishing paternity.

Culturally the puerperium is a period in which the woman must rest so that nothing bad happens her. The safekeeping must be complied with rigor and attention. For such, many prohibitions and taboos surrounding the guard, related to reestablishment and recovery from delivery come forth. Fathers understand that women at recovery “can not do anything because of the stitches”. For them, the extra caution at this moment aims at not allowing diseases to arise and avoiding the risks of death. This concept is heavily influenced by the biomedical model, linking health risks to the puerperal period.

[...] Because if it’s a cesarean, and even if it was a normal delivery, despite the fact the woman be walking, she’s still on that recovery process. The father… as the father is free and in good health, he can help much more than the mother, right? As I said, the recovery for women is essential. There are some women who get to a point where they have to do episiotomy, right? To put everything back in their places because they were moving during the recovery, when they were supposed to be resting. And… the father is free… we do what we can right? [...] It depends on me, it depends on my money, it depends on everything for her to come here… you get it? His things may prevail because of me! [...] (E18).

In view of hegemonic paternity, the man is still responsible for the welfare of the family and the financial provision, as reported by father of E18.

The experience of having a premature in NICU is predominantly based on the experiences of mothers or fathers collectively. The father understands that the woman needs support and comfort to face the child’s hospitalization. They offer help, support and worry about the feelings and the fragility of the woman, by calming her and comforting her, especially when the woman is discharged and the child remains hospitalized. As it is typical of male culture, they position themselves as strong and in control.

[...] It’s complicated, it’s complicated… my wife stays there, desperate. She was discharged today, she went home to see the other kids… and at home she was crying. And I said: calm down, it’s alright! The baby will there be a little longer because they have to take the antibiotic, so that he can… what can we do, life is this […] (E20).

It is crucial that health care professionals, especially nurses be sensitive to the unique experience of each parent (mother-father) in the context of NICU. Another study has found that mothers in the NICU report the importance of support, especially from the fathers, and their presence was interpreted as a supporting synonym for them and also for the baby. Thus, it reiterated the importance of encouraging fathers presence.

Fathers also accumulate other tasks involving this concern with women such as taking them to and bringing them back from the NICU. As the woman is in the recovery period, they provide special attention and seek to protect and assist their wives so that contact with the child may happen. They are, therefor, mediators of this process.

[...] I stay there in the morning, Then I rush to work and then rush to pick up my wife and bring her back here[...] But I must come. I must come with her because she misses the baby, even thought she cant because she had cesarian. Then we stay here for a little while and then we have to go. Then I have to take her home and I come back here […] (E18).

Fathers become, especially in this early period after delivery, a link with the team. They are the responsible for receiving the information in the NICU and pass them to the mother and family as well as for monitoring mother and baby. When the woman can’t go to the NICU, the father is worried about having to justify her absence repeatedly.
A study reveals that the work is the main factor in relation to the level of involvement and participation of the father in the care of the child in the NICU. The impact of having a premature baby hospitalized in a NICU is of concern to the father. As testimony below:

[...] my wife can't come. But I always explain to them [the doctors]: Look, I'll come every day. [...] I explain her situation and that she has stitches, and everything else and that she can't come. And my father-in-law has a car and works, he can't bring her. And the only day we have to bring her is on Saturdays. Then Saturday and Sunday are the days she comes here [...] (E7).

When the woman also needs hospitalization in the ICU, the paternal tasks are intensified. At this point, it is important to stimulate the search for social support from the family such as grandparents, uncles, aunts, and friends. By receiving help with daily tasks, the father will have more available time and will be able to dedicate more to his child and wife in hospital, as it is essential the emotional and psychological support.

The differences between fathers' and mothers' experience's of having a premature child are vast. The women are still seen as primary caregivers of the premature in the NICU.

CONCLUSIONS

The men are usually the first ones to go to the NICU and meet the child, and then provide information to the woman. At this point, the support of fathers conducted by the nurse is indispensable, and they should provide information on general health situation and general routines, always seeking to promote dialogue and to identify the father's ability to receive such information at that time. Emphasizing the positive aspects of the premature and their potential at this first moment, not highlighting the disease, provides a positive experience and empowers the father to the emotional bond.

The premature infant is perceived by his father as fragile, small, and immature. They say they that having a baby in the NICU is a sad, complicated, difficult and painful experience. Therefore, they are afraid to touch the premature and are afraid of losing them. Fathers deposit the confidence in the technological environment of the NICU and on the healthcare workers to maintain the life of the child. At the same time, all the technological apparatus creates a separation from the child who usually can’t be held by the father and which reduces physical contact with their parents.

Encouraging the fathers’ approximation with the baby, through the touch, is essential to promote parent-child relationship. This way, fathers get used to the appearance of the premature and perceive themselves as fathers. The earliest as possible, just as the baby is clinically stable, the father should be encouraged to take them in his arms and have skin-to-skin contact.

The fathers are present in the NICU. Therefore, it is important that the health care staff do not waste opportunities of contact and communication with fathers as they usually stay for a shorter time in the NICU.

The fathers in the present study demonstrated to live this social and cultural transition of parenthood, with a slight overcoming of the hegemonic model. While they understand as fundamental their role of financial provider, they also demonstrate desire to care for their child. They also understand the importance of their involvement with the young kid to provide development, comfort and support. They talk about the presence of the father so that the child can recognize them and that it brings benefits and pleasure to the father themselves in being with the child. Knowing the reasons that take the father to the NICU allows the nursing staff to invest and show the potential and benefits of father involvement in the relationship with their child.

The traditional model of assistance to the family in which the mother’s participation is the focus must be reconsidered for the father’s insertion, as an attempt to humanize the service. One must learn to work with the new cultural reality where men take care of home and children along with the women and that they, along with men, also have to work outdoor.

It is important to emphasize that this study points to questions that may be subject to other investigations, for example, ones that may respond to questions about: what is the commitment of health institutions with establishing policies targeted on men in the exercise of fatherhood and fathering through optics of fathers who have had premature babies? How does the father involvement and the care for the premature by his father at home occur after hospital discharge? What is the importance of health care professionals in the planning of actions for fathers? These issues emerged during the study and may be of interest for the professional practice in the neonatal nursing area.

Regarding the limitations of the study, it can be pointed out the fact that the fathers were inserted in an institution that allowed access to the NICU and that had an institutional policy focused on the father (a unit certified by the city of Rio de Janeiro as “Father’s Support Health Care Unit”). Therefore, it doesn’t the reality altogether of the other units that do not have this program implemented. Thus, it’s necessary other studies, with wider approach, related to the theme.

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REFERENCES


