Transition to Fatherhood in the Context of Prematurity: From Pregnancy to the Third Month after Discharge

Fernanda Borges de Medeiros*,1
Orcid.org/0000-0001-6333-1147
Cesar Augusto Piccinini1
Orcid.org/0000-0002-4313-3247

01cla.01g/0000 0002 1010 0217

¹Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brasil

Abstract

The present study aimed to investigate the transition to fatherhood in the context of preterm birth from hospitalization in the neonatal intensive care unit (NICU) to the third month after discharge, through a collective case study. Three fathers of preterm female infants participated in the study. All the fathers were living with the babies' mothers. The reports of the participants were examined through qualitative analysis. Reports on the pregnancy and birth revealed intense anxiety, emphasizing feelings of helplessness and concerns with the wife's health, survival and emotional condition. After the delivery, the participants were very dedicated and caring as fathers, especially during the first days of life of their infants, including frequent visits to the baby and providing emotional support to the wife. Three months after discharge, reports of the fathers showed how their daughters, although healthy, were still perceived as very vulnerable babies, triggering a series of care actions and, therefore, having important repercussions in their lives. The need to provide psychological interventions not only for mothers but also for fathers of preterm children should be highlighted.

Keywords: Fatherhood, preterm birth, neonatal intensive care unit, pregnancy, childbirth.

Transição para Paternidade no Contexto da Prematuridade: Gestação ao 3º Mês Após Alta do Bebê

Resumo

O presente estudo buscou compreender a transição para a paternidade no contexto da prematuridade desde a internação do bebê na UTIN até o 3º mês após a sua alta hospitalar por meio de um estudo de caso coletivo. Participaram três pais de bebês nascidos pré-termo e do sexo feminino. Todos residiam com a mãe do bebê. As entrevistas foram examinadas através de análise de conteúdo qualitativa. Os relatos sobre gestação e parto revelaram impotência e preocupações referentes à saúde, sobrevivência e condição emocional da esposa. Após o parto, os participantes mostraram-se bastante dedicados e atenciosos como pais, especialmente, durante os primeiros dias de vida do bebê, incluindo visitas ao bebê

^{*} Mailing address: R. Ramiro Barcelos, 2600, sala 111, Porto Alegre, RS, Brasil 90035-003. E-mail: fernanda. bdmedeiros@gmail.com

Article based on the dissertation of Fernanda Borges de Medeiros, entitled "Fatherhood in the context of prematurity: from the hospitalization of the baby to the third month after hospital discharge" (2012). Support: National Council for Scientific and Technological Development.

na UTIN e apoio emocional à esposa. Após a alta hospitalar, os relatos paternos evidenciaram o quanto as filhas, embora saudáveis, ainda eram percebidas como bebês bastante vulneráveis, desencadeando uma série de cuidados e importantes repercussões em suas vidas. Destaca-se a necessidade de se oferecer intervenções psicológicas não só às mães, mas também aos pais dos bebês nascidos pré-termo.

Palavras-chave: Paternidade, nascimento prematuro, UTIN neonatal, gravidez, parto.

Transición hacia la Paternidad en el Contexto de la Prematuridad: Gestación a Tres Meses Após el Alta

Resumen

El estudio buscó comprender la transición hacia la paternidad en el contexto de la prematuridad desde la internación en la UCI Neonatal hasta tres meses después de alta, por medio de un estudio de caso colectivo. Participaran tres padres de bebés nacidos prematuros y femeninos. Todos los padres vivían con la madre del bebé. Las entrevistas fueron analizadas a través del análisis de contenido cualitativo. Los relatos sobre gestación y parto revelaron impotencia y preocupaciones referentes a la salud, supervivencia y condición emocional de la esposa. Después del parto, los participantes se mostraron bastante dedicados y atenciosos, especialmente durante los primeros días de vida del bebé, incluyendo visitas al bebé en la UCI Neonatal y apoyo emocional a la esposa. Después del alta, los relatos paternos evidenciaron cuánto las hijas, aunque sanos, todavía eran percibidas como bebés muy vulnerables, desencadenando una serie de cuidados y importantes repercusiones en sus vidas. Se destaca la necesidad de ofrecer intervenciones psicológicas no sólo para las madres, sino también a los padres de los bebés nacidos prematuros.

Palabras clave: Paternidad, nacimiento prematuro, UCI neonatal, embarazo, parto.

Regardless of the context, the birth of a baby involves an irreversible change, generating an increase in conflicts and anguish, as well as the possibility of growth and satisfaction. Among the changes, during pregnancy and also after the birth, mothers and fathers1 experience changes in their own identity, which will be necessary to alter emotional investments and the allocation of energy, time and activities (Stern, 1995). Unlike women, as highlighted by this author, in men this process of identity reorganization may occur over a long period. In addition to the transformations of the identity, for the primiparous, another important change is the transition from a couple relationship (two) to a relationship of motherfather-baby (three), which requires adaptation to the new situation: the relationship with the infant (Cramer & Palacio-Espasa, 1993). With the arrival of the baby, men need to reconcile the

When a preterm infant is born (less than 37 weeks gestation), unlike full-term birth, the mother and father must also experience the complexity of the interruption of the pregnancy and the first contacts with the baby in the Neonatal Intensive Care Unit (NICU), which can add to the anguish and challenges in the process of becoming a mother and father. Due to the fragility of the preterm infant and the unpredictability that characterizes the NICU, fear regarding the death and sequelae of the baby and feelings of helplessness and impotence are frequent among parents (Hollywood &

demands of work, daily care of the baby and the requirements of the partner who needs emotional support (Genesoni & Tallandini, 2009; Halle et al., 2008). Many still follow the "traditional" model of fatherhood, feeling primarily responsible for financial issues, while some have shown themselves to be very involved and attentive to the baby's needs (Höfner, Schadler, & Richter, 2011).

¹ "Father" is used to refer only to the infant's father.

Hollywood, 2011; Johnston, 2014; Lasiuk, Comeau, & Newburn-Cook, 2013; Stacey, Osborn, & Salkovskis, 2015). Fathers of preterm infants also express concern about the physical and emotional condition of the mothers, who generally feel guilty about the discontinuation of the pregnancy (Coutinho & Morsch, 2006; Koliouli, Gaudron, & Raynaud, 2016). In the period that the baby is in the NICU, the father has many roles and functions that range from the emotional support of the mother, supporting her at the time of the visit to the NICU, to communication with the health team (Tracey, 2002).

In addition, soon after the birth, men will generally be the first to enter the NICU and establish contact with the baby (Arnold et al., 2013). Some authors have shown that fathers are immediately involved with the baby, especially when they are encouraged by the team to approach the baby and have opportunities for physical contact (Fegran, Helseth, & Fagermoen, 2008; Stefana, Padovani, Biban, & Lavelli, 2018). Whereas other studies have highlighted that fathers may feel frightened by the NICU technology, imagining that by touching the baby, they may interfere with the baby's care and/or may cause an infection (Arnold et al., 2013; Hollywood & Hollywood, 2011; Stefana et al., 2018). The possibility of touching the baby can generate contrasting feelings, from excitement and joy to fear of causing harm to the baby and disappointment that they do not have permission to touch their child. Therefore, as discussed by Provenzi and Santoro (2015), the team should encourage the presence of the fathers in the NICU, but always respect their decision regarding the moment they visit and how they interact with the baby.

The literature has emphasized the importance of the support offered by healthcare providers to the fathers of preterm infants (Benzies & Magill-Evans, 2015; Johnston, 2014; Stacey et al., 2015). For example, Johnston's (2014) single case study, which investigated a 22-year-old, African-

American father of a very low-weight baby², demonstrated the importance of the NICU team providing information about the baby and thus decreasing the anxiety. In addition, for this father, the team's positive attitudes, the trust, and the capacity for empathy of the healthcare providers helped him in the process of becoming a parent. Similarly, Stacey et al. (2015) emphasized the importance of the relationship with the team and also with other fathers to deal with the baby's hospitalization in the NICU, highlighting the flexibility and empathy of the professionals. Other researchers have shown that emotional and financial support from the grandparents is crucial for fathers to be able to assimilate all the emotional burden faced with such an unexpected and harrowing event as the birth of a preterm baby (Coutinho & Morsch, 2006; Koliouli et al., 2016; Lasiuk et al., 2013).

In the period after hospital discharge, feelings of joy and responsibility for the care of the baby predominate (Benzies & Magill-Evans, 2015; Jackson, Ternestedt, & Schollin, 2003; Marski, Custodio, Abreu, Melo, & Wernet, 2016). When studying fathers of preterm infants that had a corrected age (CA) of four months, Benzies and Magill-Evans (2015) showed that the fathers were very satisfied with the possibility of being with the baby, being recognized by it and observing its growth and development. However, shortly after discharge, in the study by Jackson et al. (2003), the fathers still felt insecure about feeding and caring for the baby. Although pleased to be responsible for their child's care, they were also tired due to constantly checking to see if the baby was breathing. When the baby was six months of age, the fathers of the study felt safer and

Regarding birth weight, newborns weighing less than 2,500g are classified as "low birth weight"; those weighing less than 1,500g as "very low birth weight"; and those weighing less than 1,000g as "extremely low birth weight (World Health Organization, 2006).

less concerned with the health and care of the baby (Jackson et al., 2003).

Although many studies have investigated fatherhood in the context of preterm birth, the vast majority have focused on the period of hospitalization of the infant in the NICU (Arnold et al., 2013; Coutinho & Morsch, 2006; Fegran et al., 2008; Hollywood & Hollywood, 2011; Koliouli et al., 2016; Stefana et al., 2018). Few studies have used a longitudinal design. Although the postpartum and the entire hospitalization period are important for the constitution of fatherhood in the context of prematurity (Coutinho & Morsch, 2006; Hollywood & Hollywood, 2011), so are the delivery and the first months of the baby's life, at home, when fathers need to fulfill some specific roles (Genesoni & Tallandini, 2009), which have been little investigated in this complex context of birth. Therefore, the present study aimed to comprehend the transition to fatherhood in the context of prematurity, from the hospitalization of the baby in the NICU until the third month after the hospital discharge. Considering the reviewed studies, the initial expectation was that the fathers would present intense psychic suffering, with intense anxiety and fear of death during the hospitalization of the preterm baby in the NICU, with this having gradually reduced three months after the hospital discharge, although concerns about the infant's development would still persist.

Method

Participants

Three fathers of preterm female infants participated in the study. The fathers were selected from among the participants in the longitudinal project entitled Prematurity and parenting: from birth to 48 months of life, 2010-2016 – PREPAR (Lopes et al., 2016) that accompanied mothers and fathers of preterm infants in public hospitals in the city of Porto Alegre, from hospitalization in the NICU to 48 months of life. Infants that started in the project could not have congenital

malformation, and the mothers could not present drug use, HIV, or relevant mental or cognitive impairments, as reported in the medical records of the case. For the purposes of the present study, families participating in PREPAR that met the inclusion and exclusion criteria of the present study were selected. In addition, among the seven families followed by the first author until the third month after hospital discharge, all the cases that presented complete data of the fathers, mothers and infants were selected. The first father, Gabriel³, was 27 years of age, worked in a private company and had incomplete higher education. The second father, Paulo, was aged 45 years, had complete high school education and was a salesman. The third father, João, was 33 years of age, self-employed and had complete higher education at the end of the data collection. All the participants lived with the mother of the baby and had a medium socioeconomic level.

The definition of the number of participants in this study is due to the authors' interest in comprehending the transition to fatherhood in the context of prematurity in each of the cases studied. It was understood that the cases chosen would provide better opportunities to learn about the phenomenon studied, without intending to generalize the results (Stake, 2006).

Instruments

As part of the project PREPAR, several data collection instruments were used, however, only those used to collect data for the present study are highlighted below. The *Interview on the experience of fatherhood in the pregnancy and birth in the context of prematurity* was carried out with the father during the baby's hospitalization in the NICU. This aimed to investigate the feelings and perceptions of the father in relation to the pregnancy, birth and the first contacts with the infant. The *Interview on fatherhood in the context of prematurity in the postpartum period*, also performed during the hospitalization period,

All names used in the present study are fictitious in order to preserve the confidentiality of the participants.

sought to investigate the experience of the father regarding the preterm infant's hospitalization in the NICU, including several questions about the experience in the NICU; the father-infant relationship; the experience as the father of the preterm infant; the relationship with the NICU team, the perception about the baby's mother; and the father's support network. The Interview on fatherhood in the context of prematurity in the post-discharge period was used to investigate the experience of fatherhood in the third month after the discharge of the infant and included questions about the experience and routine at home; the father-infant relationship; the experience as the father of the preterm infant; perception about the baby's mother; the support network of the father; and the feelings and perceptions in relation to the discharge. All the interviews in the present study were adapted from interviews that have been widely used by the research group to investigate in detail parenting in typical and atypical contexts. Information was also used that was obtained through the mother who, prior to the father's participation, had completed a sociodemographic data form to characterize the participants, and a clinical data form for the preterm infant and mother in the postpartum period. This was used to characterize the health conditions of the mother and the clinical evolution of the infant from birth, based on information from the mother and the medical chart. Further details about the instruments are described in PREPAR.

Data Collection Procedure

In the project PREPAR, the participants were contacted in NICUs of three public hospitals in Porto Alegre. During the hospitalization of the infant, after the mothers had agreed to participate in the project, the fathers were also invited to participate in the project. An initial meeting was scheduled in the NICU with those who agreed to participate. In this first meeting, they signed the consent form, with the Interview on fatherhood in the context of prematurity in the postpartum period being initially performed. At the end of this meeting, a new meeting was scheduled,

also during the baby's hospitalization, when the Interview on the experience of fatherhood in the pregnancy and birth in the context of prematurity was carried out. In the 3rd month after the baby was discharged, the families were contacted again to schedule a home visit, at which time the fathers responded to the Interview on fatherhood in the context of prematurity in the post-discharge period. The interviews were structured and conducted in a semi-directed way, with a duration of approximately one hour. The interviews were audio recorded and transcribed for analysis.

Data Analysis Procedures

Qualitative content analysis was performed (Laville & Dione, 1999) to investigate the transition to fatherhood in the context of prematurity from the hospitalization of the infant in the NICU until the 3rd month after hospital discharge. The transition to fatherhood was analyzed based on the concept of paternal representations (Stern, 1995), based on a category structure adapted from studies that investigated the experience of fatherhood in other contexts, such as maternal depression (Silva, 2007) and pregnancy in adolescence (Henn, 2011). According to Stern (1995), the concept of parental representations includes the fears of the mothers and fathers, their dreams, fantasies, hopes, mother and father models, memories of their own childhood and prophecies for the child's future, and their interactions experiences with their child. Although less frequently the focus of studies, the representations of the father have also been used in parenthood studies (Stern, 1995). It was understood that this concept could contribute to comprehend the transition to fatherhood from the hospitalization of the infant in the NICU to the 3rd month after its hospital discharge.

For purposes of analysis, three categories were considered. The first, called Representations about himself as a father, involved paternal accounts about the way in which the father describes himself in this process of transition to fatherhood, his feelings, his concerns, his

fears, and the changes that have taken place throughout this process of becoming a father. The second category, Representations about the daughter, refers to how the father described the daughter's temperament, her characteristics, her capacities and her development. The third category, Representations about the family of origin, included the father's descriptions of the relationship with his own parents before and after the birth of his daughter, the support received from them, and the memories of the relationship with his own parents during childhood. Based on these categories, qualitative content analysis was performed, considering the manifest and subjective content of the verbalizations throughout the interviews (Gomes, Piccinini, & Prado, 2009; Laville & Dione, 1999). After the transcription of the interviews, the first author made an initial reading of all transcribed material, in order to construct a brief description of each case. In a second moment, the author sought to identify reports that were related to each one of the categories described above and that allowed the understanding of the case. Qualitative analysis was based on the author's classification, with the writing and discussion of each category reviewed by the second author.

Ethical Procedures

The longitudinal project of which this study is part was approved by the Ethics Committee of the Federal University of Rio Grande do Sul (Authorization No. 22009015, of June 16, 2009) and by the Research Ethics Committee of the Conceição Hospital Group (Authorization No. 063/09).

Results

Initially, a brief characterization of each case is presented based on the sociode-mographic data, on the pregnancy and clinical conditions of the baby hospitalized in the NICU followed by the findings involving each of the categories examined longitudinally, in relation to the pregnancy, the hospitalization period of the infant and three months after the discharge, illustrating

with vignettes from the statements of the participants.

Case 1: Gabriel, Mariana and Ana Beatriz

Gabriel (27 years of age), who had incomplete further education and worked in the real estate business, had been married to Mariana (24 years of age) for about two years. The pregnancy of their daughter, Ana Beatriz, was planned and was the first of the couple. The news of the pregnancy was received with great satisfaction by him and his wife. The pregnancy occurred without any health problems until the 28th week, when Mariana presented worsening preeclampsia and had an indication for preterm delivery (cesarean section), due to the risk to the lives of her and her daughter. Ana Beatriz was born at 28 weeks gestation, with very low birth weight and spent two months and four days in the NICU. In the third month after discharge, Ana Beatriz was six months of age, with three months CA. Since discharge, she had been in good health and was in an outpatient monitoring with a pediatrician, neurologist and ophthalmologist.

Representations about himself as father. Since the pregnancy, Gabriel proved to be very involved with fatherhood. For example, he reported changes in his eating habits, resulting in changes in his weight during this period: "I lost seven pounds, because I was following her diet, because the doctor told her the food she [wife] had to eat to strengthen the baby". These bodily changes throughout the pregnancy seem to indicate his great involvement with Ana Beatriz portrayed in his concern for the wife's health and also with the baby that needed to be properly nourished.

Also in relation to the pregnancy period, Gabriel emphasized strongly that he had never imagined that his wife would present any health problem or would have needed hospital treatment or an emergency cesarean delivery, considering the systematic prenatal consultations, food and health conditions: "I never imagined going through this situation. During the pregnancy there was no problem. I thought it was going to

be all right". His reports of the third trimester of pregnancy revealed that Gabriel's experience of fatherhood was permeated by frustration and by a great disappointment due to innumerable unrealized plans and dreams. For example, unlike what he planned, he could not accompany his daughter's birth: "When I arrived, she had already been born... Ah, it was bad not to be together". Despite this, he was happy to become the father of a girl, reflecting in his sensitivity and willingness to offer emotional support to his wife, particularly during her hospitalization.

During the period of his wife's hospitalization he had a number of concerns regarding the health of his daughter and wife, feelings of helplessness and a sense of insecurity about the future. The fear of losing his daughter was present from the diagnosis of preeclampsia to the post-discharge period, particularly during the first days of life: "Oh, I was always worried, because the doctor said she had very little chance of surviving. She was very small, very premature". Despite the intense anxieties mobilized by the preterm delivery and during the hospitalization of his daughter, Gabriel always showed hope and optimism about the possibility of her surviving and overcoming the clinical complications.

In the third month after discharge, his daughter's health concerns were still constant, saying that he feared his daughter would need to be hospitalized again: "The worries were just that she might have to go back". Because of this concern, he avoided taking his daughter out walking in the street: "The first few days I did not leave because I was afraid to go out with her to the street because of the wind... I was afraid she would get sick because of the wind". In addition, he was still very concerned about his daughter's breathing, which made his sleep difficult due to excessive nighttime care: "Sometimes I do not sleep at night... I sleep for an hour, wake up and watch her... Whenever she's asleep, I'm taking care to see if she's breathing". It also drew attention that he mentioned that he used to check the temperature of his daughter, characteristic care of a NICU: "I always look at her temperature to see if she does not have a fever, I always take care".

Regarding changes due to the fatherhood, Gabriel described significant changes in the routine of life, in particular, after the hospital discharge: "My routine changed a lot. Now it's all for her. But it's cool". It was noted that he was very devoted to the care of his daughter, showing satisfaction and great enthusiasm when commenting on his dedication to her, which ranged from leisure activities to changes in schedules due to her sleep difficulties. Despite satisfaction with fatherhood, one of the changes Gabriel mentioned was his reevaluation of his plans to have other children due to the risk of preeclampsia and, consequently, the birth of a preterm baby: "I have to talk to the doctor to see if I can risk it. I always wanted to have two, a girl and a boy. Let's see if now after that, we are going to close the factory".

Representations about the daughter. Gabriel's remarks about pregnancy period of his daughter showed that despite its brevity, he was already able to construct an image of her, identifying and/or imagining similar characteristics between himself and his daughter, described with great enthusiasm: "I imagined her face looking like me". He also said that the ultrasound made it possible for him to know a little about the development of his daughter's organs and health conditions.

During the period of hospitalization, Gabriel was able to describe more about the appearance than the personality of the daughter, in particular, being able to visualize what she would look like in the distant future. During this period of her hospitalization in the NICU, he realized that his daughter was immature, fragile and vulnerable: "I had never seen a baby as small as this. You see and you get scared. I thought she will not be able to live, because she was so small". At the same time, he presented very optimistic descriptions regarding the future of the daughter, noting that she was growing and overcoming the clinical complications, especially the difficulties related to breathing and feeding.

Three months after her discharge, despite describing her as a healthy child, Gabriel still saw her as a fragile baby: "She's still very weak. I do not know if she would be able to withstand

an illness like that [measles]". His vision of the daughter still focused on the future, highlighting her health and potential for the development of sensory (such as hearing and vision), motor, and language skills. It seems evident that, just as during the pregnancy and hospitalization, he imagined his daughter in the distant future, as if she could grow and develop rapidly.

Representations of the father about the family of origin. Gabriel's accounts showed that his family of origin, especially his mother and father, were able to offer adequate emotional and financial support from the end of the pregnancy to the period after discharge. Particularly, he emphasized the importance of his father's presence during the prepartum period, taking into account the intense anxieties aroused at this time: "It was good that he [my father] stayed [in the hospital]. At least I had someone to talk to". At three months after discharge, unlike the pregnancy and the period of hospitalization, the help from his mother and father in the care of their granddaughter and in the domestic tasks was quite frequent. For example, his mother helped to care for her granddaughter on a daily basis, while his father tended the garden. Gabriel was very pleased with this support.

In addition, Gabriel described his parents as being people that were available and constant throughout his life, being seen as the main sources of support both during his childhood and now in this period of transition to fatherhood. He sought to relate to his daughter and to bring her up according to the memories of his own childhood, aiming to repeat the same experience he had had in the relationship with his own parents, considering them to be a good model of identification: "If I teach her how my father taught me, that'll be fine!".

Three months after discharge, unlike the period of pregnancy and hospitalization, Gabriel perceived important changes in the relationship with his own parents and maternal grandparents: "Before I was the center of attention. Now the attention is all for her". Since his daughter's arrival at home, the attention and interest of his parents (and even his maternal grandparents)

were intensely focused on their granddaughter and great-granddaughter, respectively.

Synthesis of the Case Results. Gabriel's accounts showed how satisfied he was with fatherhood, which seemed to be closely linked to the couple's planning of the pregnancy and the desire to have a daughter. From the news of the pregnancy to the first few months after discharge, he proved to be a sensitive, loving father and very involved in his daughter's care, especially during the period of his daughter's hospitalization. Although he was very happy, experiencing a risk pregnancy came suddenly and unexpectedly, the experience of becoming a father for the first time was also marked by a considerable increase in anxieties and worries about his wife's health, frustration at not accompanying the birth and fear of his daughter becoming ill, even after her discharge from hospital.

Case 2: Paulo, Verônica and Valentina

Paulo (45 years of age) had complete high school education and was a salesman. He had been married to Veronica (33 years of age) for four years, had completed a higher education course and worked as a physiotherapist. They decided to marry in the Church after 14 years of dating and since the marriage they lived together in a large and comfortable house located in the same neighborhood that they grew up. They were not planning to have a child yet. Although it was not a planned pregnancy, Paulo was very happy to know that he would be the father of his first daughter, Valentina, because he wanted to be a father. Prenatal care was performed in a private clinic in the city where they lived. Around the 24th week of pregnancy, Verônica showed an increase in blood pressure, requiring hospital treatment for four days, which was performed in a public hospital of Porto Alegre. Later, when she was 27 weeks pregnant, she presented preeclampsia and was told she needed a cesarean. Valentina was born with 27 weeks of gestation, with extremely low birth weight and small for gestational age (SGA). She remained hospitalized in the NICU for 2 months and 5 days. In the 3rd month after discharge, Valentina was 5 months and 6 days (2 months CA). From the discharge, she was in

good health, performing the pediatric follow-up in a private clinic and monitored by a neurologist and ophthalmologist in a public hospital in Porto Alegre.

Representations about himself as a father. Paul's account of the representations of himself as a father emphasized that since the news of the pregnancy he was very happy to become a father. Although it was not a planned pregnancy, his desire to have a child was clear, related to the idea of maintaining his lineage: "I had to leave someone to carry on the generation". During the pregnancy, he still did not perceive changes in his life. However, during this period, in the last trimester, when his wife's clinical problems arose, he described changes in his emotional state and in his work routine. Among the psychic changes related to the risk pregnancy, the preoccupations with the health of his wife, the fear of the death of the daughter and the feeling of impotence that contrasted with confidence about the future became evident: "You have to get hold of yourself and have faith that it is going to be okay". Similarly, his talk about the birth revealed an intensification of concerns about his wife, particularly her emotional condition. Especially, at the time of the birth, upon realizing the wife's fragility, he displayed sensitivity and offered her emotional support: "I sat by her side and said, 'Oh, it's going to be all right'. I gave her my hand and said, 'stay calm'".

During the hospitalization, although he voiced concerns about his daughter's health and a feeling of frustration at the interrupted pregnancy, Paulo showed great joy at the birth of his daughter. He was particularly pleased to meet her in the first minute of her life: "Ah, on the first contact, I felt very happy, very content". Unlike the pregnancy, he perceived changes in his way of being, in the financial life and in the routine. In fact, he was rather devoted to his daughter, dedicating most of his time to his fatherly role: "At the moment, all the attention is focused on her". Even though he did not emphasize it much, there were also changes in his work rhythm, especially during the first weeks of his daughter's life, as he devoted most of his time to her, going to the NICU twice a day.

Also regarding the period of hospitalization, one aspect that drew attention was his optimism about the future of his daughter from the earliest days of life and pride in perceiving her growth throughout her hospitalization: "I've always been very positive. I thought it would be all right, that Valentina would grow". He said he was adapting, which related to his age and his condition of life in that period of life: "our lives change because of that [preterm birth], but with all this we adapt ourselves... Thankfully, I'm already 45 now, so I'm more or less organized".

In the third month after the discharge, Paulo was able to resume his work and the trips required by his profession. Despite this, he was still a very present father and dedicated to the care of his daughter. He felt mature and prepared to take on the responsibility of caring for a child. For him, his age and current living conditions, including economic and psychic aspects, seemed to considerably favor the process of transition to fatherhood. During this period, Paulo's statements also showed a sense of accomplishment and a decrease in his anxieties when perceiving the health condition of his daughter after her discharge from hospital: "I travel peacefully knowing that her health is very good". However, concerns about his daughter's health were still very much present, generating a lot of care due to the fear of illness and/or readmission. This constant preoccupation with the daughter brought significant repercussions in his life, in particular, in his social and leisure life: "We can't relax the care now in this cold weather. We do not go out of the house!".

Representations about the daughter. In relation to the pregnancy, Paulo reported that he still could not identify his daughter's characteristics and/or abilities. He said he was very concerned about his wife's health condition, making it impossible for him to be more focused on his daughter. During the hospitalization, he was already very attentive to his daughter. His constant presence in the NICU, especially during his first weeks of life, allowed him to identify her characteristics and abilities during this period and to be able to describe them. In this period, he visualized similarities between himself and

his daughter: "Valentina is as positive as her father". Later, after the discharge, it became evident that, knowing more about his daughter's characteristics, he had many expectations and dreams about her future, wishing she could in some ways be different from him: "I hope she does not take after me because I was too temperamental".

During the hospitalization, although he was aware of his daughter's immaturity and vulnerability, Paulo displayed a rather optimistic perception of her, describing her as a growing baby with potential from the moment of her birth: "Valentina, from the beginning, was very strong". Quite similarly, after the discharge, he emphasized his satisfaction by perceiving her to be healthier than his initial expectations about her development: "Because she was premature, I thought she might have more complications". Despite highlighting her weight gain and her "perfect health" during this time, his daughter was still seen as an immature and fragile baby who needed a lot of care to protect her from the risk of getting sick.

Representations of the father about the family of origin. Paulo's reports indicated that his mother, despite being happy with the birth of her granddaughter, was not very present in her life during the period of her hospitalization, while his father had already died. His sisters, the oldest and the youngest, sought to be close, making telephone contact or visiting their niece in the NICU: "Support? Ah, my sister, my sisters are always calling". From the discharge of Valentina, he identified changes in the relationship with his family of origin. On one hand, he referred to being closer with his sisters, who telephoned more frequently. On the other hand, he realized that he had less time to spend with his mother due to his dedication to his daughter: "Sometimes, because of the time I'm dedicating to Valentina I can't go and see her [mother]". Regarding the wife's family, Paulo highlighted the constant attention and support offered to him during Valentina's hospitalization in the NICU. Furthermore, after the discharge, he reported that his mother-in-law took care of her granddaughter and helped with the housework.

It was especially emphasized that although Paulo had a rather positive view of his relationship with his father, he said there was no father model that he would like to reflect. However, he described his father as a likely parental model: "When you're a baby, you do not remember what it was like. I think it comes from there. If the father takes good care of his son, his son will take good care of his son too". It can be assumed that the frustration and upheaval with the death of his own father when he was 17 was still present to some extent, making it difficult to identify with him:

I was in love with my father. So it was a big frustration. Even though he was ill, I never believed he was going to die. So for a long time I did not accept his death ... with time, I got over it. But it took a long time.

However, for Paulo, becoming a father seemed to be an opportunity to reconcile with his past history, particularly with the mourning for the loss of his father as a teenager. After the discharge, for the first time, he demonstrated a more integrated view of his father, containing both positive and negative aspects, unlike his reports during his daughter's hospitalization.

Synthesis of the Case Results. Paulo showed great contentment, enthusiasm, and pride in the birth of his first daughter. From the pregnancy, with the appearance of the preeclampsia, up to the first few months after discharge he proved to be very present, caring, and happy with fatherhood. Although the couple had not planned the pregnancy, it was clear how much he wanted to be a father due to the passage of time and its finitude.

Despite his satisfaction, Paulo's statements demonstrated that the pregnancy and the birth of an extremely preterm infant influenced the experience of fatherhood. The pregnancy, moment of birth and the first days of hospitalization in the NICU raised a number of concerns about the health of the wife and daughter. These moments, marked by fear of death, intense anxieties and a sense of responsibility, led to emotional changes in work and the routine. Later, particularly after the hospital discharge, the fear of illness and re-hospitalization of his daughter

seemed to predominate, leading to a decrease in leisure activities and important changes in the family relationship.

Case 3: João, Heloisa and Carolina

João (33 years of age), was self-employed and was studying for the final year of an Economics degree. He had lived with Heloisa (25 years of age), a housewife with complete high school education, for nearly seven years. He decided to live with her six months after meeting her on finding that she was pregnant with the couple's first daughter (Roberta), who was six when they started participating in the present study. He also had another 12-year-old daughter, the fruit of an earlier relationship, who lived with her mother in another city.

The pregnancy of Carolina was not planned and occurred during a period of marital crisis. João did not want to be the father of another child, revealing great dissatisfaction with the news of the pregnancy. During the pregnancy there were frequent marital discussions, in which he blamed his wife for the new pregnancy. The prenatal care was carried out in the public health service. Heloisa did not present any health problems until the 33rd week, when severe preeclampsia was diagnosed, and early delivery (caesarean section) after two days of hospitalization was planned due to the risk to the life of the baby and the mother. Carolina was born with low birth weight (1,620g) at 33 weeks of gestation. During the hospitalization period, which lasted 28 days, she remained clinically stable. It should be highlighted that, during this hospitalization period, Heloisa presented symptoms of postpartum depression, with intense psychic suffering due to the premature birth of her daughter and the marital situation, being provided with psychotherapeutic monitoring.

In the third month after discharge, when Carolina was 4 months and 11 days (3 months of CA), Heloisa presented a significant improvement in the depressive symptoms. At this time João was determined to continue his marriage to his wife and showed a good bond with Carolina. From the discharge, she was in good health, fed exclusively through breastfeeding, and was

monitored by a pediatrician in a primary health unit.

Representations about himself as a father.

During the pregnancy, João demonstrated dissatisfaction with fatherhood, since he did not plan to have more children: "Actually, I did not want another child, I started to think... I'll start all over again crying at night it complicates

all over again, crying at night, it complicates things". So much so that he only became involved with preparations for the arrival of the daughter at the end of the pregnancy. However, during the hospitalization and, more clearly, after the discharge, he felt happier, more involved and

available as a father.

Specifically, regarding the pregnancy and birth, the preeclampsia and indication of a preterm delivery in the last trimester aroused a strong sense of guilt and concerns about his wife's health, especially during the birth: "It was torment, a feeling of guilt. I was already worried that something would happen because of the turmoil there was during the pregnancy". Likewise, the preterm delivery intensified the concerns about the future development of his daughter, present since the beginning of the pregnancy. However, João's presence at the time of the delivery allowed him to ease his fears about the future of his wife and daughter, bringing relief for their survival and satisfaction for being with her: "I felt so much relief there at that time [of the birth] to know that everything had gone all right, both of them were well".

Regarding his wife, even after the birth of their daughter, João was very concerned about her emotional condition when he realized the impact of the mother-baby separation and the depressive symptoms that arose during the postpartum period. Concerning his daughter, his fears about her future health were present from the birth to the third month after her discharge, although particularly in the first days of hospitalization and at the time when she left the NICU:

I always worry about when I have to go out and leave her [daughter] there alone... Ah, I know the nurses pay attention, but I feel that, I don't know... if she moves in the incubator or turns around, she might get hurt inside. In this sense, the daily visits, although brief, allowed João to verify the growth and the good health conditions of his daughter, attenuating his anxieties.

Three months after discharge, the appearance of any health problem seemed to reamplify the fears of the hospitalization period, generating special care: "Anything happens we think she has to have special care. When she gets a fever, something like that, it seems she can't have it, because she's premature, so it's more worrying". According to him, his concerns about Carolina's health were very different from how he had been with his other full-term daughters: "Ah, about two months ago, she vomited a lot... and a little came out her nose. Then we ran to the doctor, took an x-ray to make sure everything was okay... We always pay a bit more attention". He also mentioned that he had a habit of using alcohol gel, which probably indicated his fear of infection: "I always use alcohol gel when I do anything with her".

Regarding the changes in himself throughout the process of transition to becoming the father of Carolina, it was clear that after the discharge, João was more reflective about his fatherhood role, seeking to rethink his priorities, which until then had been directed toward work and study: "I'm determined to give more attention to my family... I have to change, because it's not just work, work". In this sense, he wanted to become a more available father to his daughter and provide a favorable environment for her psychic development. He also emphasized his contentment at the birth of his third daughter, as he saw in his view positive changes in the way he related to her, his partner, and the couple's other daughter. He was getting closer to his family, which made him closer to his daughters and his wife: "I'm going to be more homely. Even Roberta [his second daughter] is going to have her father closer".

Representations about the daughter. During the pregnancy, João reported that he could not describe characteristics of his daughter or identify similarities with him. In addition, he did not verbalize expectations and/or preferences

regarding her characteristics, except for sex, making it clear that he wanted another girl.

During his daughter's hospitalization, although he realized that she was growing and evolving clinically, João's reports of this period indicated that she was seen as a small, helpless and fragile baby who needed special care even after discharge: "She's going to be a lot more delicate, so I'll take special care of her. I do not know, the idea I have is that she's going to be a bit more fragile than a normal child". In fact, in the third month after discharge, Carolina was still described as a fragile child, due to being born premature, unlike his other full-term daughters: "I sometimes imagine or think that she is more fragile because she was born ahead of time".

After the discharge, João still did not mention similarities with him or with people of his family of origin. However, unlike the other periods, he was able to describe the temperament of his daughter, referring to predominantly negative characteristics: "She's crafty and a bit irritable, everything annoys her". Although he was pleased to see her cheerful and healthy, his statements indicated that he perceived her as a more difficult baby to deal with than his other daughters.

Representations of the father about the family of origin. João's accounts showed that he was satisfied with the support received from family and friends, especially during the hospitalization of his daughter: "Just the simple fact that they [friends] are always asking or sending a message, wanting to know how the baby is, wanting to know about Heloisa. So we know we're not alone". One aspect that drew attention was the importance of the maternal aunt and other family members, such as his brother and mother-in-law, who helped in caring for the couple's eldest daughter during this period. In addition, a childhood friend was referred to as one of the main sources of support since the pregnancy, especially due to his availability and advice.

Regarding his mother, João's statements indicated that, even though she was physically distant, she remained close and attentive, always

seeking to encourage him to take care of his own family (current wife and daughters):

My mother calls every day to find out about the children. Sometimes she called, I was working. On Saturday she called: "Where are you?" "I'm at the office working". "Oh, go home and stay with your family". Things like that.

As far as his father was concerned, although he was considered a reference, he wanted to be a different father to his daughters, which he already partly felt would happen: "We always reflect our father... My father didn't even go to my baptism, he didn't close the warehouse to go... I always went". As for the relationship with the parents themselves, although he did not notice changes, the birth of the daughter was contributing to make them more present in his life.

Synthesis of the Case Results. João presented an initial reaction of rejection to the news of the pregnancy and a great dissatisfaction with the arrival of another baby. During the pregnancy, he expressed concern about his daughter's development and guilt, exacerbated by the premature birth. After the birth of his daughter, João demonstrated a sense of relief and joy at seeing her in good health and at the same time fear and uncertainty about her future. Even after discharge from the hospital, a feeling of insecurity about his daughter's health prevailed, reverberating into 'special' care. It was evident that his feelings as a father were influenced by the condition of prematurity of his daughter, but also by other adverse situations, among them: marital conflicts, the unplanned pregnancy and the fact that he did not want other children. Although these situations were overlapping anxieties and difficulties, it was realized that he could gradually overcome them, becoming more involved, present, and considerate as a father.

Discussion

The results of the present study support initial expectations that the fathers of preterm infants would present more anxiety and fears during the hospitalization. In all three cases, the results indicated an intensification of anxieties inherent

in the experience of fatherhood and pregnancy, already present in typical situations (Genesoni & Tallandini, 2009), however, potentialized here by the clinical situation of the mothers, in view of the appearance of preeclampsia, the need for hospital treatment and the emergency delivery. The fathers of the present study revealed concerns regarding the health, survival, and/ or emotional condition of their spouses, raised due to complications involving the preterm birth (Coutinho & Morsch, 2006; Koliouli et al., 2016). In fact, the delivery and birth were considered one of the most emotionally intense events in the transition to fatherhood, fostering pride and pleasure and, at the same time, triggering anxiety, a sense of helplessness and worthlessness, with this happening even in cases of full-term birth (Genesoni & Tallandini, 2009). In the case of a preterm birth, the parents' feeling of impotence and helplessness are exacerbated (Hollywood & Hollywood, 2011; Johnston, 2014).

Also, regarding the pregnancy, it was verified that the fathers reported that they could not imagine characteristics of their daughters, except for one (Gabriel). For this father, one of the aspects that seemed to have helped him to identify with his daughter since the pregnancy was his participation in the ultrasound scans. Corroborating the findings of Walsh et al. (2014), this technology can help parents perceive the reality of the pregnancy and the baby, making it easier to connect with their child.

It should also be highlighted that for the parents of the present study, one of the most distressing moments was the period of hospitalization of the wives and the birth. However, the participation at the time of the birth, which occurred in two cases (Paulo and João), gave the fathers a feeling of relief and satisfaction due to knowing the baby, allowing the fears related to the child's birth and survival to ease. Conversely, in the other case of the present study (Gabriel), the impossibility of accompanying his daughter's birth seems to have brought out, more expressively, a sense of frustration and disappointment. These results indicate that, despite the impotence that

prevails at the moment of the birth (Genesoni & Tallandini, 2009), participation at this time may also provide a sense of relief and satisfaction for the father.

Even three months after the baby's discharge, all the fathers, regardless of the size of the baby, length of hospitalization, and birth conditions, were still concerned about their child's health. Because of this, they seemed to care for their daughters in a similar way to the care received during the infant's hospitalization in the NICU. For example, one of them often checked the temperature of his daughter (Gabriel), while another was concerned with hand hygiene, using alcohol gel every time he interacted with his daughter (João). Also, some fathers (Gabriel and Paulo) tended not to take walks with their daughters and/or limited family visits to them, in order to avoid them becoming ill. Similar results were found by Jackson et al. (2003), who revealed that after discharge, the parents were constantly checking whether the baby was breathing. However, unlike the study by Jackson et al. (2003) at six months of life of the infant, the parents of the present study were still very concerned about the baby's health, providing almost 'intensive' care, which often resembled that provided by the healthcare team during the hospitalization. This result may indicate the risk that fathers may retain the idea of a still fragile baby, despite the confirmation of the infant's healthy development.

As well as the fears, worries and anxieties that marked the different periods investigated, satisfaction with fatherhood, optimism and pride in the birth of the daughter were particularly evident in two cases (Gabriel and Paulo), in which the participants wanted to be fathers and were primiparous. However, in the other case (João), the worry with the development of his daughter and a strong feeling of guilt regarding the prematurity of the baby prevailed. Contrary to findings of other studies (Arnold et al., 2013; Koliouli et al., 2016), these findings indicate the possibility that fathers of preterm infants also feel responsible for the premature birth. Furthermore, it is surprising that it was this father, whose daughter was born with better clinical conditions and spent less time in the NICU, who reported guilt due to his daughter's health situation and showed greater difficulties in visiting her in the NICU and becoming involved with her care. Accordingly, in seeking to comprehend the experience of the father in this context it is fundamental to consider not only the clinical condition of the baby, but other adverse situations (e.g., unplanned pregnancy). It is plausible to think that, if there was not an initial reaction to rejection of the news of the pregnancy and a great discontent at the arrival of a new baby, a particularity of this case, perhaps the guilt would not have been so present.

All the fathers in the present study presented significant changes in their lives from the birth of their daughter in order to adapt to the relationship with the new infant, indicating that what Stern (1995) called the process of identity reorganization would be occurring. However, this process started at different moments. For the fathers that wanted the fatherhood (Gabriel and Paulo), both primiparous, the paternal role became central from the baby's birth, enabling them to be very active and dedicated to taking care of their daughters immediately after the delivery, reconciling the demands of work and the need for emotional support of the wife (Genesoni & Tallandini, 2009; Halle et al., 2008). However, in the case of the father (João), who already had two daughters and did not want to have other children, the eventual transformations in his identity were still being processed three months after the discharge, with the task of reconciling his role as a father and his other interests involving greater conflicts. These difficulties seemed particularly related to the marital situation in that period (Gonçalves, Guimarães, Silva, Lopes, & Piccinini, 2013), characterized by conflicts, rejection and indignation. Also, perhaps the fact that all the infants were female may have influenced the dedication of these fathers. The relationship between the baby's gender and the father's involvement is still poorly studied, however, it has been shown, for example, that fathers of fullterm girls tend to sing to them more than fathers of boys (Mascaro, Rentscher, Hackett, Mehl, &

Rilling, 2017), which could be investigated in future studies.

Another result that drew attention is the importance of the experiences during childhood and adolescence in the transition to fatherhood. In relation to this, Cramer and Palacio-Espasa (1993) emphasized that the satisfying experiences of the fathers themselves become "reference points" that allow the establishment of gratifying relationships with their children, particularly evidenced in one of the cases (Gabriel). This participant's view of his own father was quite positive, so much so that he desired and, indeed, related to the daughter in a similar way to him. On the other hand, for the other participants (Paulo and João), some frustrating experiences in the past aroused remorse, giving rise to a desire to avoid their daughters experiencing the same disappointments as they had (Cramer & Palacio-Espasa, 1993). The reports of these two fathers demonstrated that disappointments in childhood and/or adolescence may bring about ambivalent feelings toward their own parents and an attempt to not repeat their past experiences with their daughters.

Finally, the results also highlighted the need for emotional support for the fathers of preterm infants, particularly during the mother's hospitalization, at the moment of delivery and in the first days of life of these infants. In one of the cases studied (Gabriel), his father and mother were very affectionate and available to this father in the different periods investigated. In this case, the constant presence of his father from the diagnosis of preeclampsia to the birth of the infant seemed to reduce the feeling of loneliness and the sensation of helplessness, especially at the birth. For two of them, due to his absence (Paulo) or the distance of significant people from their families of origin (João), other relatives, friends or family members of the spouses were important sources of support. Thus, as in other studies, emotional support for the fathers of preterm infants may be provided by the family of origin (Coutinho & Morsch, 2006; Lasiuk et al., 2013), by the team (Johnston, 2014) or even by other parents (Stacey et al., 2015).

The results discussed above highlight the important role of hospital institutions and healthcare providers in risk pregnancies, especially at the time of delivery, since they can provide a context that favors the participation of the fathers at this moment, especially among those less involved (as in the case of João). Perhaps the presence of fathers during the birth is even more relevant in the context of an unplanned pregnancy (Paulo and João) and, even more so, when the reaction to the news of the pregnancy is marked by rejection and discontent on the part of the father (João). It is also important to implement interventions that prepare mothers and fathers for the discharge of the infant (Broedsgaard & Wagner, 2005).

Finally, regarding methodological aspects, one of the limitations is the number and characteristics of the participants, who were all well educated and very involved and participative as fathers, which may not portray the reality of other fathers of preterm infants. It is understood, however, that one of the highlights of this study was the use of a longitudinal design, which included several important periods in the transition to fatherhood in the context of prematurity, still little investigated in the literature, such as the pregnancy, and post-discharge moments. In exploring these, it allowed some factors that may create greater difficulties and conflicts in the transition to fatherhood in this context to be recognized, which should be considered in future studies and in the elaboration of interventions directed toward parents and preterm babies. These include: a lack of participation of the father during prenatal consultations and ultrasound scans, maternal depression, marital conflicts, unwanted and/or planned pregnancy, and absence or lack of affective attachment to the family of origin.

References

Arnold, L., Sawyer, A., Rabe, H., Abbott, J., Gyte, G., Duley, L., & Ayers, S. (2013). Parents' first moments with their very preterm babies:

- A qualitative study. *BMJ Open*, *3*(4), e002487. http://doi.org/10.1136/bmjopen-2012-002487
- Benzies, K. M., & Magill-Evans, J. (2015). Through the eyes of a new dad: Experiences of firsttime fathers of late-preterm infants. *Infant Mental Health Journal*, 36(1), 78-87. http://doi. org/10.1002/imhj
- Broedsgaard, A., & Wagner, L. (2005). How to facilitate parents and their premature infant for the transition home. *International Nursing Review*, *52*(3), 196-203. http://doi.org/10.1111/j.1466-7657.2005.00414.x
- Coutinho, H. R. B. C., & Morsch, D. S. (2006). A paternidade em cuidados intensivos neonatais. *Revista da Sociedade Brasileira de Psicologia Hospitalar*, *9*, 55-69.
- Cramer, B., & Palacio-Espasa, F. (1993). *Técnicas* psicoterápicas mãe-bebê: Estudos clínicos e técnicos. Porto Alegre, RS: Artes Médicas.
- Fegran, L., Helseth, S., & Fagermoen, M. S. (2008). A comparison of mothers' and fathers' experiences of the attachment process in a neonatal intensive care unit. *Journal of Clinical Nursing*, *17*(6), 810-816. https://doi-org.ez45.periodicos.capes.gov.br/10.1111/j.1365-2702.2007.02125.x
- Genesoni, L., & Tallandini, M. A. (2009, December). Men's psychological transition to fatherhood: An analysis of the literature, 1989 2008. *Birth*, 36, 305-317. http://doi.org/10.1111/j.1523-536X.2009.00358.x
- Gomes, A. G., Piccinini, C. A., & Prado, L. C. (2009). Psicoterapia pais-bebê no contexto de malformação do bebê: Repercussões no olhar da mãe acerca do desenvolvimento do bebê. Revista de Psiquiatria do Rio Grande do Sul, 31(2), 95-104.
- Gonçalves, T. R., Guimarães, L. E., Silva, M. da R., Lopes, R. de C. S., & Piccinini, C. A. (2013). Experiência da paternidade aos três meses do bebê. *Psicologia: Reflexão e Crítica*, 26(3), 599-608. http://doi.org/10.1590/S0102-79722013000300020
- Halle, C., Dowd, T., Fowler, C., Rissel, K., Hennessy, K., MacNevin, R., & Nelson, M. A. (2008). Supporting fathers in the transition to parenthood. *Contemporary Nurse*, 31(1), 57-70. http://doi.org/10.5172/conu.673.31.1.57
- Henn, C. G. (2011). A experiência e a prática da paternidade na adolescência: Estudo

- longitudinal da gestação ao primeiro ano de vida do bebê (Unpublished doctoral dissertation, Universidade Federal do Rio Grande do Sul, Porto Alegre RS, Brazil).
- Höfner, C., Schadler, C., & Richter, R. (2011). When men become fathers: Men's identity at the transition to parenthood. *Journal of Comparative Family Studies*, 42(5), 669-686. http://doi.org/10.2307/41604478
- Hollywood, M., & Hollywood, E. (2011). The lived experiences of fathers of a premature baby on a neonatal intensive care unit. *Journal of Neonatal Nursing*, *17*(1), 32-40. http://doi.org/https://doi.org/10.1016/j.jnn.2010.07.015
- Jackson, K., Ternestedt, B., & Schollin, J. (2003). From alienation to familiarity: Experiences of mothers and fathers of preterm infants. *Journal of Advanced Nursing*, 43(2), 120-129. http://doi.org/https://doi.org/10.1046/j.1365-2648.2003.02686.x
- Johnston, D. A. (2014). Releasing the Flood. *The Journal of Perinatal & Neonatal Nursing*, 28(4), 319-331. http://doi.org/10.1097/JPN.00000000000000064
- Koliouli, F., Gaudron, C. Z., & Raynaud, J. P. (2016). Life experiences of French premature fathers: A qualitative study. *Journal of Neonatal Nursing*. http://doi.org/10.1016/j.jnn.2016.04.003
- Lasiuk, G. C., Comeau, T., & Newburn-Cook, C. (2013). Unexpected: An interpretive description of parental traumas associated with preterm birth. *BMC Pregnancy and Childbirth*, *13*(Suppl. 1), 1-10. doi: 10.1186/1471-2393-13-S1-S13
- Laville, C., & Dione, J. (1999). A construção do saber: Manual de metodologia da pesquisa em ciências humanas. Porto Alegre, RS: Artmed.
- Lopes, R. C. S, Piccinini, C. A., Fleck, A., Steibel, D., Esteves, C. M. E., Leão, L. C. S., & Mousquer, P. N. (2016). *Prematuridade e parentalidade:*Do nascimento aos 48 meses de vida da criança, 2010-2016 PREPAR. Unpublished manuscript, Programa de Pós-Graduação em Psicologia, Universidade Federal do Rio Grande do Sul, Porto Alegre Rs, Brazil.
- Marski, B. de S. L., Custodio, N., Abreu, F. C. P. de, Melo, D. F. de, & Wernet, M. (2016). Hospital discharge of premature newborns: The father 's experience. Revista Brasileira de Enfermagem,

- 69(2), 202-209. http://doi.org/http://dx.doi.org/10.1590/0034-7167.2016690203i
- Mascaro, J., Rentscher, K., Hackett, P., Mehl, M., & Rilling, J. (2017). Child gender influences paternal behaviour, language, and brain function. *Behavioural Neuroscience*, *131*(3), 262-273. http://dx.doi.org/10.1037/bne0000199
- Provenzi, L., & Santoro, E. (2015). The lived experience of fathers of preterm infants in the Neonatal Intensive Care Unit: A systematic review of qualitative studies. *Journal of Clinical Nursing*, 24(13-14), 1784-1794. http://doi.org/10.1111/jocn.12828
- Silva, M. R. (2007). Paternidade e depressão pósparto materna no contexto de uma psicoterapia breve pais-bebê (Unpublished doctoral dissertation, Universidade Federal do Rio Grande do Sul, Porto Alegre – RS, Brazil).
- Stacey, S., Osborn, M., & Salkovskis, P. (2015). Life is a rollercoaster. What helps parents cope with the Neonatal Intensive Care Unit (NICU)? *Journal of Neonatal Nursing*, 21, 136-141. http://doi.org/10.1016/j.jnn.2015.04.006
- Stake, R. (2006). *Multiple Case Study Analysis*. New York: Guilford Press.
- Stefana, A., Padovani, E. M., Biban, P., & Lavelli, M. (2018, January). Fathers' experiences with their preterm babies admitted to neonatal intensive care unit: A multi-method study. *Journal of Advanced Nursing*, 1090-1098. http://doi.org/10.1111/jan.13527

- Stern, D. N. (1995). The motherhood constellation: A unified view of parent-infant psychotherapy. New York: BasicBooks.
- Tracey, N. (2002). Parents of premature infants: Their emotional World. London: Whurr.
- Walsh, T. B., Tolman, R. M., Davis, R, N., Palladino, C. L., Romero, V. C., & Singh, V. (2014). Moving up the "Magic Moment": Fathers' experience of prenatal ultrasound. *Fathering*, 12(1), 18-37. http://doi.org/10.3149/fth.1201.18
- World Health Organization. (2006). Optimal feeding of low-birth-weight infants: Technical review.

 Geneva, Switzerland: Author. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/43602/9789241595094_eng. pdf?sequence=1

Received: 29/09/2017 1st revision: 06/06/2018 2nd revision 1°/10/2018 3rd revision: 14/12/2018 Accepted: 02/01/2019

© The Author(s), 2018. Open Access. This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.