

CHILD DEVELOPMENT AND PREMATURITY: A REFLECTION ON MATERNAL KNOWLEDGE AND EXPECTATIONS

Desenvolvimento infantil e prematuridade: uma reflexão sobre o conhecimento e as expectativas maternas

Desarrollo infantil y prematuridad: una reflexión sobre el conocimiento y las expectativas maternas

Original Article

ABSTRACT

Objective: To investigate maternal knowledge and expectations about the development of their premature children. **Methods:** Qualitative study, carried out at the Nucleus for Integrated Medical Attention (Núcleo de Atenção Médica Integrada - NAMI) of the University of Fortaleza (UNIFOR), Ceará, Brazil, in the period from February to December 2012, comprising mothers of premature children attended by the institution. Data collection took place by means of a semi-structured interview, which had as guiding questions: knowledge about the normal child development; relation between prematurity and development; possible implications to the development of premature infants; and the maternal expectations regarding their children's future. The following themes were considered: maternal knowledge about normal development; mothers' perceptions of the delays and compromises in the development process; and maternal expectations regarding the development evolution of their premature children. The interviews were transcribed and analyzed according to the content analysis technique. **Results:** Difficulties in knowledge related to the normal development and with regard to delays and compromises of premature child were observed. Maternal expectations concerning the evolution of their premature children's development process were considered satisfactory. The study emphasizes the role of the interdisciplinary team in the process of following up on the premature child's development, as well as the importance of this team for mothers. **Conclusion:** The interviewed mothers encountered difficulties in describing both the normal child development and the development associated to prematurity, and revealed positive expectations towards their children's future development.

Keywords: Maternal Behavior; Premature Birth; Child Development.

RESUMO

Objetivo: Investigar o conhecimento e as expectativas maternas sobre o desenvolvimento de seus filhos prematuros. **Métodos:** Estudo do tipo qualitativo, realizado no Núcleo de Atenção Médica Integrada (NAMI) da Universidade de Fortaleza (UNIFOR), Ceará, Brasil, no período de fevereiro a dezembro de 2012, do qual participaram mães de crianças nascidas prematuras atendidas pela instituição. Realizou-se a coleta de dados por meio de uma entrevista semiestruturada, com questões norteadoras: conhecimento sobre o desenvolvimento infantil normal; relação da prematuridade com o desenvolvimento; possíveis comprometimentos no desenvolvimento de crianças prematuras; e as expectativas maternas em relação ao futuro de seus filhos. Consideraram-se as seguintes temáticas: conhecimento materno sobre desenvolvimento normal; percepção das mães quanto aos atrasos e comprometimentos no processo de desenvolvimento; e expectativas maternas quanto à evolução do desenvolvimento de seus filhos prematuros. As entrevistas foram transcritas e analisadas conforme a técnica de análise de conteúdo. **Resultados:** Perceberam-se dificuldades no conhecimento relacionado ao desenvolvimento normal e no que tange aos atrasos e comprometimentos do prematuro. As expectativas maternas quanto à evolução do processo de desenvolvimento de seus filhos prematuros foram consideradas satisfatórias. Enfatizou-se a equipe interdisciplinar no processo de seguimento do desenvolvimento do prematuro, bem como a importância dessa equipe para as mães. **Conclusão:** Percebeu-se que as mães entrevistadas apresentaram

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dificuldades tanto em descrever o desenvolvimento infantil normal quanto o desenvolvimento relacionado à prematuridade e revelaram expectativas positivas quanto ao desenvolvimento futuro de seus filhos.

Descritores: *Comportamento Materno; Nascimento Prematuro; Desenvolvimento Infantil.*

RESUMEN

Objetivo: *Investigar el conocimiento y las expectativas maternas respecto al desarrollo de sus hijos prematuros. Métodos:* Estudio del tipo cualitativo realizado en el Núcleo de Atención Médico Integrado (NAMI) de la Universidad de Fortaleza (UNIFOR), Ceará, Brasil, en el período de febrero a diciembre de 2012 en el cual participaron madres de niños nacidos prematuros y que recibieron atención en la institución. La recogida de datos se realizó por medio de una entrevista semi-estructurada con cuestiones orientadoras: conocimiento del desarrollo infantil normal; relación de la prematuridad con el desarrollo; posibles comprometimientos del desarrollo en niños prematuros; y las expectativas maternas respecto al futuro de sus hijos. Se consideraron las siguientes temáticas: conocimiento materno del desarrollo normal; percepción de las madres cuanto a los retrasos y comprometimientos en el proceso de desarrollo; y expectativas maternas respecto la evolución del desarrollo de sus hijos prematuros. Las entrevistas fueron transcritas y analizadas según la técnica de análisis de contenido. **Resultados:** Se percibieron dificultades en el conocimiento relacionado al desarrollo normal y respecto los retrasos y comprometimientos del prematuro. Las expectativas maternas de la evolución del proceso de desarrollo de sus hijos prematuros fueron consideradas satisfactorias. Se enfatizó el equipo interdisciplinario en el proceso de seguimiento del desarrollo del prematuro así como la importancia del equipo para las madres. **Conclusión:** Se percibió que las madres entrevistadas presentaron dificultades tanto en describir el desarrollo infantil normal como el desarrollo relacionado a la prematuridad y revelaron expectativas positivas del desarrollo futuro de sus hijos.

Descritores: *Conducta materna; Nacimiento Prematuro; Desarrollo Infantil.*

INTRODUCTION

Preterm birth is a major cause of neonatal morbidity and mortality and has adverse consequences for public health. According to the World Health Organization – WHO (2010)⁽¹⁾, preterm is defined as babies born alive before 37 weeks of pregnancy are completed or 259 days of gestation.

Preterm birth brings the need for the child's hospitalization, and it is sometimes inevitable to keep the newborn for a long time in the Neonatal Intensive Care Unit (NICU). This period is proportional to the mother's anxiety because the longer the hospitalization period is, the greater

is the mother's anxiety level. The negative expectations of puerperal women are often related to the gestational age of the newborn. This causes a feeling of loss and anguish in the family in addition to a stressful routine that hinders the bond between parents and their preterm children⁽²⁻⁵⁾.

Pregnancy is a very important period for mother and baby because it is when this dyadic relationship begins. Being pregnant – and even the time before the fecundation – causes the mother to have many expectations, dreams and plans. All these feelings are very important in the mother-child relationship after the child's birth^(3,4).

Pregnancy months may develop very important psychic changes in a woman. This process prepares for the baby's arrival and causes several feelings like the feelings of strength, power, possession and the dream of having control over life and death. However, the mother's emotional aspect is also present when the child's birth is anticipated^(3,6).

Maternal feelings during pregnancy, i.e., feelings of self-confidence, power, strength and others, are contradictory in case of preterm birth. This happens because the mother is faced with a real son who is most of the time different from the one she and her family idealized⁽²⁻⁵⁾.

Studies show that mothers of premature babies can develop clinical symptoms of depression, nervousness, anguish, insecurity and dysphoria because of the feeling of fear of approaching the child. Ambiguous feelings cause positive and negative perspectives among mothers who present, then, high risk to develop mental disorders for being fragile to face this situation and for having difficulties related to the child's initial care^(2,4,5,7,8).

Besides the initial care, most of the time the mothers do not receive any information about child development. It can be noticed that after the hospital discharge, when there is a greater contact with the child, it is inevitable not to compare him/her with other children of the family concerning their behavior and premature development. The child-related divergences that are often identified by mothers and can be considered warning signs concerning the development are: irritability, postural alterations, frequent sleeping and crying episodes without clinical explanations^(2,7,9-11).

These warning signs are important for assessing neuropsychomotor development because they sometimes facilitate the early diagnosis of alterations in the development process⁽¹⁰⁻¹²⁾.

Children born preterm present higher rates of cerebral palsy, sensory disabilities, learning disability and respiratory diseases if compared to full-term children. Although many preterm babies do not develop severe neurological alterations, they are more vulnerable to present alterations and/or deviations in their various acquisitions and development processes like in motor, language, cognitive, sensory and perceptive functioning⁽¹³⁻¹⁵⁾.

Previous analyses^(12,16-19) showed that most of newborns who survive perinatal complications develop multiple disorders in infancy or preschool years with frequent alterations in language development, cognitive and psychomotor systems. These children may have future problems as learning disorders, attention deficit disorder, behavior disorders, deficits in motor coordination and visual-spatial perception, and difficulties in oral and written language^(10,12,18,20).

Based on the above considerations, one can notice that mothers of preterm children need support, counseling and follow-up for the development of their child. It is believed that the sociocultural level may positively or negatively interfere with the development process. Therefore, it is important that professionals have knowledge of family issues in order to establish an affective dialogue with the mother so they can reassure her about their child's health, for they show resistance to the diagnosis and treatment of the preterm child.

In order to minimize mothers' feelings and facilitate the relationship between mothers and preterm children, it is necessary to show that they are responsible for their children's care. However, these mothers deserve attention and clarification about child development by the professionals involved in the care of their children.

Within this context, the main objective of this study was to investigate mothers' knowledge and expectations for the development of their premature children.

METHODS

This is a qualitative research that took place in the Center for Integrated Medical Care (*Núcleo de Atenção Médica Integrada – NAMI*) of the University of Fortaleza, which is part of the Brazilian National Health Care System (*Sistema Único de Saúde – SUS*) and also serves private health insurance plans and consultations. The target-population assisted by NAMI is the people living in the area covered by the VI Regional Executive Secretariat (*Secretaria Executiva Regional VI – SER VI*) of Fortaleza, mainly the Dendê community. The study took place in the Occupational Therapy Sector, Early Stimulation Service of NAMI. The research was conducted from February to December, 2012.

The study population consisted of mothers of preterm children. The research inclusion criteria were mothers of preterm children born between 29 and 35 weeks and 5 days of gestational age regardless of cultural, social and economic level. The research excluded mothers of children with syndromes, cerebral palsy and auditory processing disorders.

Considering the abovementioned criteria, 10 mothers were taken as the subjects of study. Data was initially collected through questions about relevant data on the clinical history of the preterm child and then a semi-structured interview⁽²¹⁾, through which data relating to mothers were obtained: age they got pregnant and current age, number of children and child position in birth order.

The guiding questions⁽²¹⁾ were about: knowledge of child's normal development; the relation between preterm birth and development; potential problems in preterm children's development; and mothers' expectations concerning the future of their children.

The interviews were transcribed and analyzed according to the content analysis technique⁽²²⁾. This analysis consisted of a pre-analysis through the reading of the speeches of preterm children's mothers and documental analysis, i.e., preparation of material for transcription; definition of categories; and identification of data entries. The processing and interpretation of the results were performed by using the data obtained in the interviews. The most relevant aspects were emphasized for a better understanding of mothers' concerns related to preterm birth⁽²²⁾, revealing three themes that were analyzed according to the existing literature about the subject: Theme I – Mothers' knowledge of the child's normal development; Theme II – Mothers' perception of the delays and impairments in the development process of their preterm children; Theme III – Mothers' expectations of the evolution of the development of their preterm children.

The research is in accordance with the ethical principles of Resolution 196/96 of the Ministry of Health, and it was approved under Opinion No. 123.079.

RESULTS AND DISCUSSION

The mothers were housewives between 18 and 44 years old, and the number of children ranged from one to three.

Theme I – Mothers' knowledge of child's normal development

This theme comprised mothers' reports concerning the knowledge of normal development. The importance of knowing about the normal development stands out for helping identify delays or deviations commonly found in preterm newborns and lactating women. Thus, maternal knowledge should be valorized because even primiparous mothers can have an experience with children of family members or close friends.

Mother 2: "I think that normal development refers to doing everything in the right time."

Mother 4: "In order to have a good development the children must receive care, but I can't explain how. I think that during the shower one should care for not letting the

water into the child's ear; during bedtime, one should avoid putting the child in the same position always."

Mother 9: "Normal development is when a child raises the head up within 3 months of life; starts eating fruit within 5 months; can walk with some help within 10 months. One should care for preventing the child from falling and hurting the head."

Based on the aforementioned reports, it could be noticed that mothers had difficulties to describe the child's development process, which may be related to socioeconomic and cultural levels since even primiparous mothers are not aware of child's development.

It is believed that the intellectual and socioeconomic level of mothers can strongly contribute to the knowledge regarding child's development and learning processes because mothers with a higher level of education can better distinguish the acquisition stages of their offspring.

It is important to highlight that the socioeconomic aspect provides mothers with the access to information, resources and treatment. Thus, they get more enthusiastic about their children and start to observe them more. It can also be noticed that the parents' care for children varies according to the ideas and beliefs they acquire along the years through social and cultural experiences. Also, the risk factors for child's development, such as genetic, biological, psychological and environmental conditions cannot be ruled out^(2,7,11,23).

Theme II – Mothers' perception regarding delays and impairments in the development process of their preterm children.

This theme approaches mothers' perception regarding the influence of preterm birth on children's development. It stands out that mothers who have already had experiences with previous pregnancies or children of family members have an idea of what happens in the normal development process. Within this context, they can notice potential delays and impairments in the development process of their preterm children.

Mother 3: "I think she is alright because the physiotherapist, the speech and hearing health professional and the occupational therapist say she is alright...I think that if she is not stimulated, she may develop problems. She can take a long time to speak, walk, and she may not eat in the right time."

Mother 4: "My son has problems. He is one year and seven months old and he cannot speak and walk. I don't know whether this is because he was born preterm."

Mother 8: "My son has problems in the legs only, I see when he walks, but he can speak, eats well and understands when we talk to him or ask him to do something."

It could be noticed that most of the mothers said they could identify the limitations of their children; however, other mothers needed professional help to understand the development process, revealing a lack of information and perception by the interviewees and showing that these mothers believe the child's development cannot be affected by the preterm birth.

Preterm birth is one of the perinatal intercurrents that need to be taken into account for the neurological prognosis of development because it is one of the leading causes of cerebral palsy in developing countries. It is important to say that cerebral palsy diagnosis often brings together other alterations such as sensory, perception, cognitive and language disorders, in addition to learning difficulties if compared to full-term children^(5,7,9,12).

It could be noticed that the mothers participating in this study did not notice any alterations in cognitive abilities. However, they resorted to the motor functioning of their children to check for impairments in the development process.

At very young ages, it is not observed much impairment in babies' development if compared to older children. This can disguise, i.e., mothers can believe their children are getting worse with ageing, since older children present more sequelae, and clinical manifestations are more perceptible due to impairments in neuropsychomotor development^(2,9,11,20).

Theme III – Mothers' expectations regarding the development evolution of their preterm children

Theme III refers to mothers' expectations regarding the neuropsychomotor development of their preterm children. It can be observed that mothers recognize the treatment performed by an interdisciplinary team with their preterm children. They are also concerned about the future, which can be noticed through their experience exchanges with other mothers of preterm children.

Mother 2: "I hope he can have contact with other children and be a normal child; I hope he goes to school, learns how to read and write like a normal child."

Mother 4: "I hope all the best for him; I hope he walks with 1 year of life as his brother did."

Mother 5: "I believe everything is going to be alright. Today I am cool. The physiotherapist and the speech and hearing health professional said he was ok. It was pretty worse in the beginning."

Mother 6: "I think he is going to walk, and what I learn from the treatment here I apply at home so he can get better faster and avoid future problems."

Mother 9: "I like the treatment because she is much better since she started it, and I am learning with the doctors how to take care of her, shower her, talk to her every time I am with her."

Based on the mothers' reports, it was verified that they nourish optimistic feelings regarding the future development of their preterm children, discarding the possible impairments that can interfere with the development of their children.

The matriarchal consciousness keeps the mothers more unconsciously reserved and hoping time will favor children's improvement. They believe that organic maturation can change the clinical picture of their children, discarding future problems and revealing mechanisms of protection related to the development of their offspring^(4,9,11, 12).

The literature suggests that professionals involved in the follow-up of preterm children should be aware and attentive to detect potential alterations and intervene in the clinical picture rapidly, assessing abilities of the motor, cognitive, receptive and expressive languages development as an integrating part of the assessment of the maturational status of the growing preterm child^(13,16,24).

FINAL CONSIDERATIONS

From the analysis of the results, it could be noticed that the mothers interviewed had difficulties to describe both the child's normal development and development of preterm children. It was verified that, despite the limitations in the development process of their preterm children, the mothers did not associate these deviations or impairments with preterm birth.

The interviewees, taken by the maternal feeling, revealed positive expectations concerning the development of their children. The mothers were satisfied with the treatment and care provided by the interdisciplinary team responsible for the development of their preterm children. It was verified that the close relationship between mother/child and professional, in addition to the mothers' involvement with the therapy and their relationship with other mothers of preterm children undergoing the treatment are important aspects that contribute to the mother's wellbeing and evolution in the development process of the preterm child.

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