# MATERNAL MENTALIZING CAPACITY AND PREMATURITY: EFFECTS OF AN INTERVENTION IN NICU<sup>1</sup>

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ABSTRACT. Mother-infant interactions and their impact on the formation of the psyche are studied by the Attachment Theory, highlighting the maternal mentalizing capacity as a determinant in the formation of a secure attachment. This study aimed to understand how a psychotherapeutic intervention performed with mother-premature baby pairs during hospitalization in NICU affects the maternal mentalizing capacity through a qualitative intervention research, with exploratory and descriptive character, which surveyed multiple cases and assessments before and after the intervention. The research included two mother-premature neonate dyads hospitalized in NICU. Before the intervention, the instruments used were: Socio-Demographic and Clinical Data Sheets and Live History Interview with the mother; after, the instrument used was the Hospitalization History Interview. Data were analyzed according to two themes: a) maternal representations of herself; b) maternal representations of the baby. There were changes in maternal mentalizing capacity, favoring the mother-baby bond and a possible implementation of interventions aimed at the early relationship mother-premature baby in NICU.

**Keywords**: Mentalizing; early psychotherapeutic intervention; premature neonates.

# CAPACIDADE DE MENTALIZAÇÃO MATERNA E PREMATURIDADE: REPERCUSSÕES DE UMA INTERVENÇÃO EM UTIN

**RESUMO.** As interações mãe-bebê e suas repercussões na construção do psiquismo são abordadas pela Teoria do Apego, destacando-se a capacidade de mentalização materna como determinante na formação de um apego seguro. Este estudo objetivou compreender como uma intervenção psicoterápica, realizada com duplas mãe-bebê prematuro, durante a internação em UTIN, repercute na capacidade de mentalização materna, mediante pesquisa qualitativa de intervenção, exploratória e descritiva, de estudo de casos múltiplos, com avaliações antes e após a intervenção. Participaram duas díades mãe-bebê prematuro, internado em UTIN. Utilizaram-se como instrumentos antes da intervenção ficha de dados sociodemográficos e clínicos, entrevista de história de vida da mãe; e, após, entrevista de história da internação. Analisaram-se os dados por meio de dois eixos temáticos: a) *Representações maternas sobre si mesma;* b) *Representações maternas sobre o bebê.* Verificaram-se mudanças na capacidade de mentalização materna, o que favoreceu o vínculo mãe-bebê e a possível aplicação de intervenções voltadas às relações iniciais mãe-bebê prematuro em UTIN.

Palavras-chave: Mentalização; intervenção psicoterapêutica; recém-nascidos; prematuros.

# CAPACIDAD DE MENTALIZACIÓN MATERNA Y PREMATURIDAD: EFECTOS DE UNA INTERVENCIÓN EN UCIN

**RESUMEN.** Las interacciones madre-hijo y su impacto en la formación de la psique son estudiados por la teoría del apego, destacando la capacidad de mentalización materna como factor determinante en la formación de una unión segura. Este estudio tuvo como objetivo comprender cómo una intervención psicoterapéutica realizada con doble materno-infantil temprana durante el ingreso en la UCIN, afecta la capacidad de mentalización materna por la intervención investigación cualitativa, estudio exploratorio y descriptivo de casos múltiples, con las evaluaciones antes y

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después de la intervención. Se incluyeron dos díadas madre-hijo temprana ingresados en UCIN. Se utiliza como instrumentos antes de la intervención: Hoja socio-demográficas y clínicas de datos, Entrevista Historia de la Madre de la Vida; y después de: Entrevista Historia de internamiento. los datos se analizaron a través de dos temas: a) las representaciones maternas de la misma; b) las representaciones maternas del bebé. No hubo cambio en la capacidad de mentalización materna, lo que favorece el vínculo madre-bebé y la posible implementación de las intervenciones dirigidas a las primeras relaciones temprana madre-bebé en la UCIN.

Palabras-clave: Mentalización; intervención psicoterapéutica temprana; recién nacidos. prematuros

# **Maternal Mentalizing Capacity**

The study of parent-infant interactions in psychoanalysis has spread since Bowlby and his Theory of Attachment, although it is not seen by many as a psychoanalytic representative. The theory proposes the existence of a tendency to the formation of strong emotional ties with a single person, essentially the mother, as a basic need, as fundamental as food and sex (Ramires & Schneider, 2010).

The evolutionary design of attachment considers it a biologically programmed behavior, which forms a homeostatic control system that generates a sense of security from the awareness of maternal availability and sensitivity. This attachment creates a secure base for further explorations and behavioral systems, which allow flexible adaptation to new situations (Dalbem & Dell'Aglio, 2006).

The Theory of Attachment is one of the pillars of the studies by Fonagy and collaborators on the reflective function and the mentalizing capacity, interchangeable terms, referring to self-perception and perception of others as psychological beings, considering the mental states (thoughts, feelings, intentions, desires and motivations) implicit to behavior (Ensink, Fonagy, Normandin, Berthelot, Biberdzic, & Duval, 2015). The reflective function, a developmental acquisition, results from the quality of the primary mother-baby bond, enabling the child to respond to the acts of others, signifying them and understanding what happens in the minds of others (Viegas & Ramires, 2012); on the other hand, the mentalizing capacity will evolve from the reflective function, by the process of the baby trying him/herself in the mind of the other, in a context of secure attachment, consisting of the ability to understand him/herself and the behavior of others in terms of mental states and intentions, being the base of emotional auto regulation (Bateman & Fonagy, 2006; Viegas & Ramires, 2012).

Considering that the primary parents-baby experiences will be the base of these capabilities and that mental disorders will encompass their reduction or instability by mental misinterpretation of these experiences (Bateman & Fonagy, 2006; Eizirik & Fonagy, 2015), the reflective function and the mentalizing capacity of parents are crucial for the child's emotional growth and justify further studies directed to early intervention. In this sense, we highlight parents-baby psychotherapy, originated from the investigation of the puerperium and its peculiar psychic functioning, when there is redistribution of parental investment connected earlier to internal objects or aspects of the self, which will be deposited in the child; although parental representations are the focus of these treatments, the children and their relationships are included indirectly in the process, considering the accessibility to the mother and the use of playful activities in the relational composition (Tuters, Doulis, & Yabsley, 2011).

Changing this perspective, Mahrer, Levinson and Fine (1976) inserted the baby as guide of the treatment, leading to the creation of parents-baby psychotherapy Watch, Wait and Wonder (W.W.W.), where parents are guided in the session by the spontaneous and non-directive playing of the child, and, by observing him/her, they allow themselves to be conducted in the interaction created. Based on the Theory of Attachment, W.W.W. seeks to improve the interaction parents-baby, creating a secure attachment for the baby; to promote parents' ability to observe and reflect on the meaning of their baby's actions; to provide the child with an experience of emotional self-regulation; to allow parents and children to discover new ways of interaction, avoiding transgenerational repetition of patterns of insecure attachment; and to improve the mentalizing capacity (Cohen, Muir, & Lojkasek, 1999).

This technique is divided in two phases: in the first phase, the mother (most common presence), sitting on the floor and physically accessible, observes the baby playing and interact on his/her initiative, recognizing and accepting his/her spontaneous gestures; the therapist, less interactive, but interested, sits farther down and, reflecting on what happens, supports and validates the experience of

the mother. In the second phase, the mother talks about her emotional experience, becoming more knowledgeable about the child, thereby enhancing her ability to respond with reciprocal and non-intrusive gestures, allowing the development of the potential of the baby (Cohen, Muir, & Lojkasek, 1999; Tuters, Doulis, & Yabsley, 2011).

Inspired by the concepts of W.W.W., the present study proposed an intervention adapted to NICU to promote mother-premature neonate interaction, divided in two phases: in the first phase, 15-minute long, the mother, with the baby (in her lap or in the incubator), observes her child and responds to his/her interactive actions, being accompanied by the interested look of the therapist; in the second phase, 15-minute long, mother and therapist (near the child) talk about the mother's perception of that experience. Considering the influence of time and developmental aspects, especially in the case of an intervention research, the development was considered as a set of instrumental functions (psychomotor, intelligence, learning, habits, socialization and language), built by the incidence of neurological maturing, psychic and genetic processes (Kupfer, Bernardino, Mariotto, & Taulois, 2015).

On the neurological basis, substantiated in brain neuroplasticity, are the mirror neurons that are activated according to the observation or performance of an action; based on emotional processes are the mother's empathy and interactive behavior, which provide the child with the evolution of language and mentalizing capacity (Laznik, & Burnod, 2015). Thus, the mother's adaptation to the child in an interaction promotes de maintenance of a predictable and harmonized neuronal flow; otherwise, in face of unpredictable maternal actions, an unstructured and non-interpretable flow will be produced, and the interactive experience will be felt as pain (Laznik, & Burnod, 2015).

In the case of less neurologically developed premature neonates, it will be up to the mother to start interactive exchanges that will influence and be influenced by the child's growth (Camarneiro & cols., 2015; Ensink & cols., 2015). Considering the parent-baby interaction as the first route to the relations of attachment of the baby, the focus of this study was premature babies and their mothers; the objective was to understand how a psychotherapeutic intervention performed with mother-premature neonate pairs during hospitalization in NICU affects the mentalizing capacity of the mother.

#### Methods

A qualitative research of intervention, with an exploratory and descriptive character, was developed consisting of a multiple case study (Gil, 2010), with two phases, before and after the intervention, carried out in a public hospital in Southern Brazil. Two mother-premature neonate dyads, hospitalized in NICU, participated in the study, which were elected by convenience, indicated by the clinical staff according to previously established inclusion criteria, described in table 1; another two dyads were listed, but were not included in the study; in the first, the baby was in process of hospital discharge with no time for the procedures; in the second, the mother did not agree to participate in the survey.

Table 1. Characteristics of the participating dyads

| Mother  | Age | Education                 | Family economic class <sup>a</sup> | Baby    | GA b        | Birth<br>weight |
|---------|-----|---------------------------|------------------------------------|---------|-------------|-----------------|
| Case 01 | 38  | High School               | B1                                 | Case 01 | 32<br>weeks | 1,775 g         |
| Case 02 | 21  | Incomplete<br>High School | C1                                 | Case 02 | 32<br>weeks | 1,690 g         |

a According to the classification of the Brazilian Association of Research Firms (2013), on a scale with eight levels ranging from E (low) to A1 (high).

The mother must: have been of legal age and discharged from the hospital; have presented difficulties of involvement, not staying with the baby and avoiding touching him/her; have presented irritability or constant cry; have been self-declared nonuser of drugs and have not presented previous

b Gestational age of the baby at birth

psychiatric disorders or severe mental illness. The baby must: have been born between 32 and 36 weeks of pregnancy; have not been of multiple pregnancy; have been in NICU for at least three days; have not been in artificial ventilation; and have not presented neurological sequelae, malformation or undefined syndromes or diagnoses. This group of neonates was chosen considering that babies born before that period go through a physiological reorganization that quickly makes them fatigued and disorganized; besides, they usually develop good physical health, without neurological sequelae, sensory disorders or other diseases common to high-risk premature neonates (Pinto, 2009). All participants lived in the State of Rio Grande do Sul.

After the nominations, there was an initial meeting with the mothers to sign the Informed Consent (IC), and next, the Socio-Demographic and Clinical Data Sheets were filled to confirm the inclusion criteria and general data on family and pregnancy; in another meeting, the Life History Interview of the Mother was performed to learn about her childhood and current perceptions. Afterwards, the intervention was carried out; the researcher, with a background in Child Psychotherapy and with more than 10 years of clinical experience in parents-baby psychotherapy, was the therapist responsible for the implementation of the remaining instruments. On the day of the baby's discharge, the Hospitalization History Interview was performed with the mother to learn about her perceptions of the hospitalization and the intervention.

The Case 01 dyad remained for 17 days in the NICU, and four interventions were performed without obstructions in an interview room, where the mother held the baby; the Case 02 dyad remained in the NICU for 25 days and eight interventions were performed inside the admission unit, marked by interruptions of the clinical staff and a fire in the sector that caused overcrowding and the maintenance of babies in the incubators for three consecutive days; in most of the interventions, the baby remained inside the incubator. The variability of the number of interventions was due to the time of indication of the mothers (in Case 01, after five days of hospitalization; in Case 02, after three days) and the length of the hospitalization period (in Case 02, the discharge occurred after six days of the scheduled date and because of the interruption of procedures due to breastfeeding difficulties).

The interviews were recorded on audio and transcribed, and a Personal Journal, to record the impressions of the researcher and for completion of the data, was used. This manuscript was based on the guidelines of the Consolidated Criteria for Reporting Qualitative Research (COREQ), an auxiliary checklist for writing qualitative scientific papers, composed of 32 items that cover from the selection of the research team to the analyses and interpretations (Tong, Sainsbury, & Craig, 2007). The research project originated from this study was submitted to the Research Ethics Committee and obtained approval in accordance with ethical and methodological requirements expected of researches with human beings.

Data analysis was initially performed through the construction of individual evaluations of the results of the cases using the findings of the selected instruments, considering the mentalizing capacity of the mother as indicator of changes, which could be measured through her manifestation in actions and words. The Life History Interview of the Mother and the Hospitalization History Interview were evaluated by the Checklist for Clinical Assessment of Metallization, an instrument consisting of a simple system of scores that generates an overall assessment of the mentalizing capacity through partial analysis of four themes: perception of the mother's own mental functioning, perception of the thoughts and feelings of others, self-representation and general attitudes and values, punctuated in the categories: Very High, Good, Moderate or Poor (Bateman & Fonagy, 2006; Faccini, 2011).

The interviews were also evaluated in a global and qualitative way, from which emerged two thematic axes: a) *Maternal Representations of Herself*, to investigate the mother's self-image and its influence in the exercise of maternity; and b) *Maternal Representations of the Baby*, to assess her representations of the baby and their repercussions on the formation of a dyadic bond. Initially, the cases were built individually, considering their particularities, and later a synthesis was developed by crossing them to compare similarities and differences (Yin, 2010).

For the purposes of trustworthiness of the findings, since the therapist was also the researcher, the analysis of the Checklist was carried out, before and after the intervention, by two independent judges who did not know the research and, by consensus, issued a final opinion on the results found; for this construction the information from the Personal Journal of the researcher was also used. In order to

obtain a high-quality and reliable analysis of the findings of this Multiple Case Study, a cross-check of the data obtained was subsequently performed in order to make the final considerations of the findings in a convincing and accurate way (Yin, 2010).

## Results and discussion

#### Case 1

The 38-year-old mother is married and, besides the daughter, born at 32 weeks due to preeclampsia, she has an adolescent son, who lives with his grandmother; she had another premature girl a year and three months before, stillborn, at the same hospital. Her life was marked by an abrupt separation from the mother after moving house, and significant losses (her father, a brother and a boyfriend); her indication resulted from the fact that she could not remain with her daughter in the NICU, and because of her emotional state of extreme anxiety and crying, remembering her dead baby.

The initial impressions on the researcher were striking because of the extreme anxiety of the mother, who spoke with, gestured to and sharply shook the baby, without realizing her fragility; she also expressed mood lability and constantly stirred the baby, not letting her fall asleep. The girl, with a flushed and delicate appearance, remained calm and tolerant, usually sleeping, and crying only to feed. When awake, she explored the environment with a bright and curious look, arousing pleasurable sensations in the researcher, and a desire to take care of her.

# a) Maternal representations of herself

Prior to the intervention, the mother's speech was confused, generating strangeness in the researcher, who constantly requested clarifications, giving the interview a clinical character. While referring to the childhood as wonderful, she reported that her father used to drink and "hit her bad, with a belt, with a lot of anger (sic)"; about the mother, she said they had a beautiful relationship, though they did not have a communication channel: "my mother and my sisters are a chain and I'm part of it, but am a disabled chain (sic)".

The contradictions of the mother and the initial impression of the researcher suggest that there are traumatic childhood experiences connected to family violence and parental lost. Avoiding these memories, the mother retained an idealized paternal image, and a denigrated maternal one, due to a lack of secure attachment figures, which may have been a source of fear and insecurity (Ensink & cols., 2015).

In describing herself, the mother was more upstanding and introspective, seeing herself as boring and sly. She recognized that parental overprotection due to childhood diseases influenced her mental representations, interrupting her maturation, and might intervene in her current relationship: "My way of being, which's a lot like my father, I'd also protect my child ... I've been noticing that I protect my son incorrectly (sic)". These representations, which include expectations, fantasies, fears, dreams, childhood memories and parental models may influence the relationship with her children (Cabral & Levandowski, 2011).

After the intervention, the mother acquired an auto-inquisitive posture, observed in a change in scores of the Checklist in the category perception of own mental functioning, which evolved to Very High, as expressed in the statement: "It'll be nice, me and her home, an enriching experience. She's gonna teach me and I'll help her, what we often don't see well, a child teach us and we learn many things too (sic)". It was also verified an adequacy of affections in the account of the experience in NICU, expressed as: "... t'was a difficult thing... it scared me 'cause I'd never entered a NICU (sic)", and as expectations in face of hospital discharge: "...deep inside I have my fears, but nothing a good mother won't learn to program for her son so everything go right (sic)".

It was noted that the mother could, through the bond with the clinical staff and the intervention, mobilize internal resources by changing her pattern of attachment, enhance her metallization capacity and experience a positive relationship with her daughter (Ensink & cols., 2015; Ramires & Schneider,

2010). These results are compatible with the overall scores of the Checklist, which went from Good to Very High after the intervention (table 2).

Table 2. Checklist scores - case 1

| Category   | Score before intervention | Score after intervention |
|--|---------------------------|--------------------------|
| Understanding of the thoughts and feelings of other people | Good                      | Very High                |
| Perception of self-<br>mental functioning                  | Good                      | Very High                |
| Self-Representation  | Moderate                  | Moderate                 |
| Values and attitudes                                       | Good                      | Good                     |
| Global   | Good                      | Very High                |

#### b) Maternal representations of the baby

Revealing low sensitivity and lack of identification with the daughter, the mother caused the phase previous to the intervention to be anxiogenic for the researcher by raising her daughter without holding her head, preventing her from falling asleep or even insisting in feeding her during her sleep, stating: "I know you's not sleeping anymore, you don't fool me (sic)". This initial mother-baby interaction was characterized by a regressive state that requires flexibility of the woman to circulate in various levels of her psyche, and has as model her own experience of care as a baby (Caron & Lopes, 2014). In this case, were observed: the initial obstacles that may result from maternal deficits related to lack of secure attachment figures her in childhood; the anticipation of delivery, which might be responsible for the low sensitiveness of the maternal conduct, since it is at the end of pregnancy that there is an increase in sensitivity; and the mother's grief, being common to mothers with previous losses the difficulty in investing in a new relationship (Freire & Charterlard, 2009).

Significant distortions linked to the maternal perception about the baby also stood out before the intervention. These, based on guilt and frustration, made the girl "... very agitated and mad... I think is 'cause she suffered much with my high pressure inside the belly, poor thing...(sic)", corroborating studies that indicate that maternal guilt about prematurity appears to confer some logic sense to the facts (Anjos & cols., 2012). At the same time she saw her daughter as being similar to her dead sister, and suggested an attempt to elaborate her maternal grief and to fill this emotional gap.

After the intervention, the mother was quieter, watching her daughter and respecting her manifestations, such as reacting to her mother's touch while asleep: "Calm down, all right, got it. Won't touch ya if you don't want me to (sic)". The reflexive posture obtained at the end of this stage and the appropriate responses to the needs of the child shows that the mother had become less invasive, more sensitive and aware of her baby, watching her with less projections and identifying her features: "I think she's a very smart girl who want to know everything, this world is unknown for her, only knew the belly and now see everything (sic)".

# Case 2

The 21-year-old mother is married and gave birth to a boy, born at 32 weeks of pregnancy; two years before, she had another pregnancy, terminated in the 27nd week due to a uterine malformation: a girl, born in the same hospital, died of kidney failure after 15 days. The mother lived the separation of the parents still in adolescence, as a result of aggressive paternal conduct, when her mother left her to take care of her father, moving to another state with her other children: both maintain restricted contact and have never seen each other again.

The first impressions of the researcher were of little empathy and detachment, with a difficult affective connection with the mother, who kept an impoverished speech, without affection, reason why she was indicated for the study: she did not remain with her son, being affectively distant from him. The

baby, small and thin, was quiet and undemanding, crying a few times during the meetings; extremely sleepy, he aroused mixed feelings in the researcher, because while that inspired some apathy, it generated concern for his health.

### a) Maternal representations of herself

Initial contacts with the mother were difficult, although she was available; when replying to questionnaires, she did not express affections, generating concerns in the researcher regarding the possible bond mother-researcher and her cognitive capabilities. With short sentences, she expressed her internal poverty, speaking lightly: "no one's ever separated, only me mom and dad (sic)".

Concrete thinking and lack of self-knowledge were exacerbated, reaffirmed by the score Poor (table 3) in the checklist for the category *perception of own mental functioning*, suggesting decreased mentalizing capacity. This ability, considered as the one where the individual recognizes and discriminates his/her own internal mental states (thoughts, beliefs, desires and emotions) from the external (depicting others) involves a reflective self and come from the primary experiences of attachment, when parents are able to reflect on and name the baby's emotional state (Zanatta & Benetti, 2012).

Therefore, deficits manifested by the mother might be related to a troubled family structure in childhood, or the presence of mistreatment, according to studies that show that children from 5 to 8 years old who suffered child violence exhibited deficiencies in their mentalizing capacity (Fonagy, 2001). Denoting great interior poverty, confirmed by the score poor in the checklist for the category self-representations, she claimed she had no memories previous to the age of 10.

The absence of childhood memories suggests that the mother has defensively altered her ability to represent her own and others' mental states, operating with schematic and inaccurate impressions about her emotions and feelings: she referred to the relation with her parents as good, although she did not evoke happy periods, and upon idealization, "They was very careful with us (sic)"; she avoided thinking about possible parental wishes to cause her damage, typical operation of abused children (Fonagy, 2001).

After the intervention, it became clear that these poor relationships stretched to the clinical staff of the unit, when the mother, silent and alone, said that she only talked to those who were more open and nice. She became more introspective, attitude that was reflected in the checklist score for the category perception of own mental functioning, which passed to Moderate, according to table 3, considering herself "very angry" and recognizing her contradictions when she was discharged without her son: "I was sad and happy at the same time, 'cause I know he is being well tended here (sic)". Closest to the researcher, though not showing any affection in that proximity, she stated that the baby's father also was an angry man and she could not tell which one was more furious.

Although she called herself "a great mamma (sic)", prepared to care for her son after hospital discharge, her checklist score for the category self-representations remained unchanged after the intervention, according to table 3. This result suggests that her difficulties may be structural, requiring more time to be modified.

Table 3. Checklist scores - case 02

| Understanding of the thoughts and feelings of other people | Moderate | Moderate |
|--|----------|----------|
| Perception of self-<br>mental functioning                  | Poor     | Moderate |
| Self-Representation  | Poor     | Poor     |
| Values and attitudes                                       | Moderate | Poor     |
| Global   | Poor     | Moderate |

#### b) Maternal representations of the baby

In the periods prior to the intervention, the mother presented difficulty to be with the baby, not tolerating to hold him during the 30 minutes of Free Interaction Footage, stating that "he's done, want to go back to the cradle (sic)"; the researcher, in turn, identified with her, felt uncomfortable and looked forward to the completion of the activity. The ignorance of the mother about the baby became evident when the mother stated about the conducts: "Dunnow what it means, no idea (sic)", as well as a strong inhibition in direct contact. Her attitude confirms the study performed with 30 mother-premature neonates in NICU, which aimed to assess the quality of interactive behavior in a face-to-face situation, where these difficulties were related to lack of maternal understanding of the mixed and distorted signals showed by the babies due to their physiological immaturity (Camarneiro & cols., 2015).

Avoiding the interaction, the mother showed fear of intensifying the bond, a felling common to parents of premature babies faced with fear of death of their child (Camarneiro & cols., 2015) and possibly exacerbated here by the existing grief. The memories, endured together with emotions raised by the son being in the same physical environment of his sister, may have inhibited the initial interactions, preventing the mother from issuing acts of recognition and approximation through the stimulation of the sensory systems of the child. These actions are described as an attempt at mutual understanding in a study performed with 11 dyads that investigated the first ties of intimacy (Rosa & cols., 2010). Not being able to be with her son during the early days, the mother was constantly reminded of what happened to her dead daughter, especially because the boy was placed in an incubator next to the one where his sister was kept.

After the intervention, the mother was curious about the boy's emotions, saying: "I don't think he liked (being touched) 'cause he don't want to be aweken (sic)". She recognized and interpreted his faces while asleep as dreaming or having nightmares and cared about the size and fragility of the baby, denoting that the representations of the son are based on stereotypes of prematurity, which may occur in these situations, where the child is seen as immature and physically less capable (Gonzáles-Serrano & cols., 2012). Along with this concern, however, she still retained a more positive perception of the baby: "... he's very small... has more hair... look at his lil' jowl... (sic)".

### Synthesis of cross cases

Through the analysis of individual cases, common and divergent factors of the experiences of prematurity and hospitalization in NICU were verified. We highlight that both mothers were married and lived with their companions, were from different economic classes and had similar life histories concerning separations: the mother in case 01 departed from her own mother to live in another city; the mother in case 02 was abandoned by her own mother when their parents separated. In both cases, the childhood was permeated by instabilities, manifested in breakups, losses and physical aggressions.

Such factors suggest that both mothers lived their early attachment relations in a troubled environment and possibly their progenitors, absorbed in their personal conflicts, were not stable and predictable objects. Therefore, the establishment of secure mother-baby attachment bonds might have been jeopardized, compromising the development of the mentalizing capacity of the mothers in this study (Bateman & Fonagy, 2006).

Both mothers have lost one baby two years before, due to maternal physiology that was left untreated and interfered in the following pregnancies: in case 01, by pressure alterations that lead to preeclampsia and, in case 02, uterine malformation. The lack of investment in self-care, leading to new

unscheduled pregnancies, prematurely terminated, ratifies the researches by indicating that mothers in mourning use to make little investment in new pregnancies, creating a far and objectified relationship with the new baby, based on insecurities, fears and defenses, considering the chances of a new loss (Freire & Charterlard, 2009).

The babies, born at 32 weeks of gestation, had similar physiological conditions, though the baby in case 02 received longer tube feeding for the lack of rhythmic feeding. Also due to external adversities, he remained longer in the incubator, with a slow recovery process, when compared to the baby in case 01.

Concerning the theme *Maternal representations of herself*, it was observed that both mothers, before the intervention, caused intense feelings in the researcher that did not foster initial empathy, raising doubts about the construction of consistent bonds. Considering empathy as a form of communication based on the first relationships, which will contribute to the mentalizing capacity, maternal deficits in this area were evident through the difficulty expressed in the formation of affective ties (Godinho, 2015).

After the intervention, the mother in case 01 became closer to the researcher, seeking information about the development of the baby and feeling comfortable to talk about her feelings concerning the discharge; from this relationship, a strong attunement emerged, and a desire to maintain the bond, suggesting that the decreased mentalizing capacity might have caused the traumatic experience of the previous loss, the persisting grief and the condition of prematurity itself (Ensink & cols., 2015). Oppositely, the mother in case 02 remained distant from the researcher and the clinical staff of the unit; the scarce expressions of affection were demonstrated through a glance or slight smile, suggesting that her limitations were associated with a psychic impairment, with impoverished affective communication and failure in considering others as a source of help or comfort (Rocha, Guerra, & Maciel, 2010).

Although the mother in case 01 initially showed herself euphoric and little introspective, she perceived the influences of transgenerational relationships and described herself in a realistic way; indicating good mentalizing capacity, she evoked her mental representations and associated them to the affective tone that involved them. The mother in case 02 presented impaired mentalizing capacity, maintaining a concrete and objective speech, suggesting the presence of operational thinking, characterized by representational deficiencies (Ferraz, 2010).

The differences between the personalities of the mothers might be the responsible for the disparity between the results obtained along the intervention. In case 01, the mother obtained significant gains at the end of the study, becoming more aware of her mental functioning; in case 02, although the mother had participated longer in the intervention, it did not alter her perceptions, suggesting a greater commitment of her egoic functions.

Data analysis of both cases did not show changes in the checklist scores for this category from the beginning of the intervention. Since they are mental schemes, conscious and unconscious, formed from the first parent-baby interaction, changes might be connected to the need for a therapeutic experience based on transfer and interpretative work (Zanatta & Benetti, 2012).

Regarding the theme *Maternal representations of the baby*, there was a lack of primary identification of the mothers with the babies in both cases, leading them to not understand their children's basic needs: in case 01, the mother attributed to her daughter perceptions constructed from her own projections; in case 02, the mother have not even alluded the existence of a psyche in her son. Maternal difficulties in this area may refer to the lack of secure attachment figures in childhood who could have generated satisfactory care models, as well as the anticipation of motherhood, since the intensification of maternal sensitivity occurs primarily in the last months of pregnancy, of which they were deprived (Caron & Lopes, 2014).

The mother in case 01 used the memory of her dead daughter to construct her representations of her living daughter, and in seeing her as similar to the sister, she talked about her unresolved grief and found reasons to invest in another relationship, even if, before the intervention, it represented the continuity of the first, interrupted by the premature death (Freire & Charterlard, 2009); the mother from case 02 expressed deficiencies in her mentalizing capacity and consequently in representing her baby in her mind. Still, after the intervention, both presented changes regarding their representations of their

children: in case 01, she discovered her own features in her daughter, and in case 02, the mother found herself feeling curious about her baby.

#### Final considerations

Considering the results obtained, it is noted that the study led to changes in maternal mentalizing capacities, generating a space for the exercise of observation of the child in the first phase of the intervention, and, in the second, a moment to recognize and name emotions through the report of the experience to the researcher. The low emotional connection seen in the initial phase may result from an inability of both mothers to use as reference their childhood experiences of care and interaction, perceived as traumatic (Eizink & cols, 2015).

In this sense, maternal grief may have contributed to inhibition of these functions, since unresolved traumatic experiences act directly on these abilities. The positive results attributed to intervention may express the feasibility of the elaboration of grief by the use of words when talking about emotions, which have the function of making sense and creating realities, being powerful mechanisms of subjectivation (Bondía, 2002).

Although the mentalizing capacity, a system originated from the primitive relations with parents, tends to resist change and to regulate later interactive models, the data point to chances of transformation. The opening of a space for the construction of a dyadic relationship, as well as the presence of an affectively available professional, may have collaborated to changes in the mentalizing capacity of mothers through new experiments with the environment (Silva, Vasco, & Watson, 2013), even though the benefits achieved through intervention in Case 02 have been more restricted.

Thus, the results suggest that in cases where the mental functioning is governed by operational thinking, the gains with the intervention may be restricted or even null. Therefore, it is recommended that new studies contemplate the relationship between maternal mental functioning and the effectiveness of this intervention, whereas the deficits in maternal mentalizing capacity may be risk factors for the formation of the baby's psyche.

Other studies, focused on the importance of maintaining stable and welcoming relationships between clinical staff and mothers, without disregarding the needs inherent to the NICU, are vital. Understanding the value of interactive exchanges between both must be addressed, especially for mothers who hold the construction of maternity as a crucial period for the development of their mentalizing capacity, now in a new stage. (Eizink, 2015).

Thus, the intervention favored the promotion of maternal mentalizing capacity, reflecting directly in the interaction mother-infant. Such results suggest that this study can assist in the implementation of interventions in this context, focusing on maternal conditions for the creation of a secure attachment bond with their premature babies in NICU.

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