

REVISIÓN

## Mother-child separation in critical care: emotional implications, impact on the bond and intervention strategies

### Separación madre-hijo en cuidados críticos: implicaciones emocionales, impacto en el vínculo y estrategias de intervención

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#### ABSTRACT

**Introduction:** the hospitalization of a premature baby is the cause of stress for many mothers, affecting the mother-child bond, producing emotional changes in the mother and, on the other hand, the presence of complications in the neonate's health status. The general objective is to analyze the available literature on the effects on the health of the mother, the newborn and the family when separation occurs.

**Method:** a literature review was carried out under a qualitative approach and descriptive design in DIALNET, SCOPUS, SciELO, Science Direct, PubMed and LATINDEX databases, using search terms such as: mother-child separation, experiences, critical care, implications; with Boolean operators "and" and "or". The selection of articles was based on inclusion and exclusion criteria, leaving a final sample of 30 original articles.

**Results:** separation of the mother-infant dyad in critical care poses risks to the neonate, ranging from poor neuropsychological development to extension of care. A negative pattern is observed in the psychological health of the mother manifested by negative emotions, reaching a point where both become emotionally and functionally disengaged. Methods have been developed to lessen the effects of these problems and improve both the quality of life of the newborn during their stay and the mother-child bond.

**Conclusions:** it is crucial the support of health personnel, with programs and workshops that involve the mother in the care of the baby, helping to a better development and clinical evolution of the newborn.

**Keywords:** Mother-Child Binomial; Hospitalization; Premature Newborn; Mother-Child Separation.

#### RESUMEN

**Introducción:** la hospitalización de un bebé prematuro es la causa del estrés de muchas madres, siendo afectado el vínculo madre-hijo, produciendo en la madre cambios emocionales y, por otro lado, la presencia de complicaciones en el estado de salud del neonato. El objetivo general consiste en analizar la literatura disponible sobre los efectos que tiene sobre la salud de la madre, del recién nacido y la familia cuando se presenta la separación.

**Método:** se realizó una revisión de literatura, bajo un enfoque cualitativo y de diseño descriptivo en bases de datos DIALNET, SCOPUS, SciELO, Science Direct, PubMed y LATINDEX, utilizando términos de búsqueda como: separación madre-hijo, experiencias, cuidados críticos, implicaciones; con operadores booleanos "and" y "or". La selección de artículos fue en base a criterios de inclusión y exclusión quedando con una muestra final de 30 artículos originales.

**Resultados:** la separación de la diada madre-hijo en cuidados críticos supone riesgos para el neonato, yendo

desde un mal desarrollo neuropsicológico hasta la extensión de la atención. Se observa un patrón negativo en la salud psicológica de la madre manifestado por emociones negativas, llegando a un punto donde ambos se desvinculan emocional y funcionalmente. A estos problemas se han desarrollado métodos para menguar sus efectos y mejorar tanto la calidad de vida del recién nacido durante su estancia como el vínculo madre-hijo. **Conclusiones:** es crucial el apoyo del personal de salud, con programas y talleres que involucren a la madre en el cuidado del bebé, ayudando a un mejor desarrollo y evolución clínica del recién nacido.

**Palabras clave:** Binomio Madre-Hijo; Hospitalización; Recién Nacido Prematuro; Separación Madre-Hijo.

## INTRODUCTION

According to the World Health Organization, a birth is considered premature if it occurs before the 37th week of pregnancy. This can happen for a variety of reasons; most cases occur spontaneously, although in some cases, it is due to infections or other problems during pregnancy, requiring early induction of labor or a cesarean section.<sup>(1)</sup>

Similarly, Ionio et al.<sup>(2)</sup> point out that complications in the pregnant woman and the fetus can interfere with the health and integrity of both, resulting in hospitalization of the newborn, separation, and restrictions on physical contact. As a result, there is no adequate mother-child bond, which originates from conception until the baby is born and which is then strengthened by skin-to-skin contact as soon as possible after birth. This causes suffering in the mother, immune problems, and nutritional complications in the newborn.<sup>(3)</sup>

Likewise, through physical and emotional interactions, the newborn experiences a transition from intrauterine to extrauterine life that requires adaptation in different aspects, making early contact with the mother necessary to establish a relationship of love and care, enabling greater survival. However, the newborn is constantly exposed to pain and faces early separation from their parents, which can be detrimental to both the newborn and their caregivers due to restrictions on visits and accompaniment in neonatal units. This is an essential factor for the survival of premature newborns, who are often exposed to stressful stimuli such as the sounds of monitors, different voices, and excessive lighting.<sup>(4)</sup>

Therefore, the hospitalization of a premature baby causes mothers to experience an emotional crisis due to the uncertainty of their child's health and the unfamiliar environment in which they find themselves, with stress being the most prevalent emotion in women. This leads to a disconnect in the relationship between mother and child, making it challenging to meet the child's needs for protection and closeness.<sup>(5)</sup>

Similarly, the termination of pregnancy, as well as the emotional detachment when the newborn is admitted to a neonatal intensive care unit (NICU) due to complications during pregnancy, has a significant impact on the family.<sup>(6)</sup> This is a period of intense suffering, as it shatters the maternal ideal of having a healthy baby, compounded by the separation of the dyad, which interferes with the strengthening of the bond, making it difficult for the mother to cope with reality.<sup>(7)</sup>

Similarly, this unexpected and overwhelming situation, which is difficult for parents to cope with, triggers a series of negative consequences that are reflected in their emotional, physical, and mental health, where they experience a decline in their ability to concentrate and make correct decisions.<sup>(8)</sup> For this reason, parents need emotional support to adapt to a prolonged period of hospitalization of their child in the NICU, given that mothers experience a series of emotional stages.<sup>(9)</sup>

Considering the above, this study aimed to analyze the available literature on the effects of separation from the mother-child bond on maternal, neonatal, and family health in critical care services.

## METHOD

The research was conducted using a qualitative approach. It observed and analyzed the problem under study from the detailed perspective of various experiences, allowing for a deep understanding of the experiences, difficulties, and feelings of the participating parents. This provided a complete view of the subject matter in the different articles found.

Similarly, it is descriptive in design, which facilitates the collection and analysis of data on the phenomenon or situation under study, allowing for an accurate description. This helps to detail the characteristics and properties of the problem under study, which is beneficial for formulating theories and models to clarify the phenomenon or situation under investigation.<sup>(11)</sup>

Similarly, it is a literature review that thoroughly examines articles related to the problem and behavior under study through data collection for subsequent analysis and to obtain the most relevant information for the research.<sup>(11)</sup>

On the other hand, the population is defined as elements or events that share a common similarity, sharing specific structures and characteristics that need to be identified and analyzed in detail.<sup>(10)</sup> This includes 200

pieces of research found, which, through convenience sampling, resulted in a sample of 30 original articles. According to Chipana,<sup>(12)</sup> the sample is considered to be representative of the population, which has specific characteristics for conducting the research, as well as the application of selection criteria.

*Inclusion criteria:*

- Articles published within the last five years.
- Articles published in three languages: Spanish, English, and Portuguese.
- Articles related to the subject or problem under study.

*Exclusion criteria:*

- Bibliographic review articles, articles older than five years, literary texts, editorial letters, and articles from gray literature or incomplete articles.
- Thesis-type articles for master's degrees, specializations, and doctorates.

The information was collected through a comprehensive search of databases such as DIALNET, SCOPUS, SCIELO, SCIENCE DIRECT, PUBMED, LATINDEX, and the use of the Boolean operators AND and OR. Search equations such as “Mother-child separation” AND “implications” AND “experiences” AND “critical care,” “Mother-child separation” AND “implications” OR “emotions,” “Separação mãe-filho” AND “emoções” OR “implicações.”

Subsequently, the information found was stored in an Excel matrix, which served as a tool for organizing the information and finding aligned patterns. This matrix recorded data such as author(s), date of publication, title of the publication and its translation into Spanish, objective, research questions, relevant patterns of the study, links, bibliography, and the database where the study was found, as well as indexes.<sup>(13)</sup>

The data analysis process was conducted using an inductive method through critical reading, achieving a comprehensive overview of the research topic. The information was then gradually divided into three parts to answer our study questions based on the behavioral patterns associated with emotional changes in mothers after separation. This facilitates the analysis of multiple specific cases and generalizes them, allowing us to observe patterns in detail and collect collective data to understand the phenomenon under investigation better.<sup>(14)</sup>

## RESULTS AND DISCUSSION

### *Emotional implications of the separation of the mother-child bond in critical care services*

According to Nogueira et al.<sup>(15)</sup>, the emotional state of mothers facing separation from their child, usually in the NICU, tends to follow a well-defined pattern of emotions, often negative, where they mention feelings of distress, fear, nervousness, and insecurity, but at the same time hope for possible recovery and the opportunity to return home with their newborn. On the other hand, Poblete et al.<sup>(16)</sup> mention that this type of situation causes anxiety and fear in mothers who do not feel prepared for the sudden birth of their child. However, they feel relieved knowing their baby is in a special unit with health personnel trained to provide the necessary care.

Similarly, negative feelings arise in mothers when they are informed that their children must be admitted to the NICU, which is a shocking situation that causes a significant change in their lives.<sup>(17)</sup> When the mother and child are physically separated, the mothers feel lonely, considering the emptiness in their arms and being away from the new member of their family.<sup>(18)</sup>

In addition, Marocco et al.<sup>(19)</sup> state that this type of thinking creates feelings of guilt about the baby's condition and that family members are responsible for promoting these negative perceptions, questioning mothers about their care during pregnancy and the lack of response from the healthcare system regarding the newborn's clinical progress.

On the other hand, gaps in the healthcare system's infrastructure and lack of resources restrict early contact and emotional bonding, which impacts the emotional well-being of new parents. Sadness, pain, fear, and confusion about seeing their child monitored by invasive devices, as well as a lack of communication from the healthcare team providing care, are common feelings.<sup>(20)</sup>

Therefore, Dos Santos et al.<sup>(21)</sup> explain that continuous exposure to long periods of hospitalization is a critical and stressful event for both the mother and her family, as they experience significant changes not only in their emotional state but also in their daily routine. Generally, this type of feeling takes hold of the mother when healthcare workers work separately from family members, creating a bad environment, as the emotional burden is greater when in an environment of uncertainty.<sup>(22)</sup>

It should be noted that not all mothers experience the same set of emotions and that not all family members act in the same way. Acharya et al.<sup>(23)</sup>, in their work, found that some of the mothers, although nervous, were very happy to hold their babies in their arms for the first time, despite knowing that the newborn was premature and would be taken to the NICU because they trusted the service. They described the moment as wonderful or said they were happy to see them well. This shows a range of feelings, from hope to guilt.

However, these feelings are driven by the lack of contact and the severing of the mother-child bond, considering the loss of breastfeeding as a moment of bonding with their baby, as well as providing them with the nutrients necessary for their development. This is due to the lack of policies in services regarding access to this activity, as well as a space for its implementation.<sup>(24)</sup>

Finally, gaps in care services in critical closed areas manage to disconnect the mother-child bond, which is detrimental to the psychosocial health and development of the newborn. Therefore, it is necessary to implement measures or protocols to achieve the integration of the mother in the therapy of premature babies. This involves promoting early attachment and the active participation of family members in therapeutic decisions regarding the newborn.

#### *Impact of mother-child separation in critical care services on the emotional bond*

When the mother-child bond is interrupted, Khasanah et al.<sup>(25)</sup> point to the presence of barriers that complicate the development of an adequate emotional bond. As a result, some mothers experienced feelings of panic, fear, and anxiety, avoiding any contact with their children. One of the aspects that drives the psychological suffering of mothers about hospitalization is the lack of physical contact with the newborn, such that the NICU environment hinders attachment between mother and baby.<sup>(26)</sup>

On the other hand, regarding the neonatal ICU environment, Borba et al.<sup>(27)</sup> report that, during the first visit, mothers perceived the complexity of the equipment in the unit as unfamiliar and threatening, which intensified their state of alertness and generated the need to observe what was happening around them, causing a diversion of attention away from the newborn. Similarly, another challenge is that mothers felt strange when observing their newborns, experiencing a feeling overwhelmed due to the suffering and pain their babies were experiencing while being unable to protect them.<sup>(28)</sup>

Likewise, Martins et al.<sup>(29)</sup> state that a lack of understanding of this situation makes it difficult for the mother to provide basic care. By not adequately fulfilling their maternal role, the women did not consider themselves to be mothers, as the healthcare staff were entirely responsible for carrying out the necessary activities, which prevented them from establishing a connection with their babies. Similarly, those who suffered most from this situation were mothers of premature babies who were together with other mothers whom their healthy children accompanied. This difference in breastfeeding roles not only affected them mentally, but some of them also suffered from breast engorgement. Hence, the solution was to breastfeed other babies, which brought them considerable relief.<sup>(28)</sup>

Similarly, Väliäho et al.<sup>(30)</sup> detail that the bonding process is fundamentally affected by an emotional imbalance on the part of mothers about the delicate state of health and survival of the newborn, making it difficult for them to show affection towards their baby. In many cases, it is not only a sentimental or emotional issue but also a psychological impact, given that some mothers consider the baby to be a stranger and not someone close to them, creating an emotional disconnect between the pair.<sup>(31)</sup>

According to Díaz et al.<sup>(32)</sup>, the separation from their children causes both psychological and physical difficulties because mothers are exposed to long periods in the hospital environment. This circumstance is complicated because they are not fully recovered after a cesarean section or natural childbirth, which is an uncomfortable and painful event. Likewise, the condition of the newborn hinders the development of the maternal role, which complicates the construction of the mother-child bond, causing deep psychological distress for mothers. As a result of these psychological problems, signs of depression appear, as well as feelings of inadequacy, especially during the first weeks of hospitalization of newborns.<sup>(33)</sup>

On the other hand, Faúndez et al.<sup>(5)</sup> indicate that during COVID-19, the protocols implemented in the Neonatal Intensive Care Unit were further increased; mainly, the visits made by the baby's mothers and fathers in this area were more controlled because of this, it was recognized as a limitation to improving the relationship between mother and child, affecting the emotional well-being of the triad.

Therefore, it is essential to take into account the mother's health after separation, not only psychologically but also physically. These situations alienate the mother from her baby and vice versa, leading to problems with emotional attachment and the future child's healthy development in all areas. It is necessary to allow breastfeeding in babies, avoiding loss of sucking in the newborn and functional problems in the mother. All these challenges are exacerbated when there is a lack of assertive communication with healthcare professionals, which leads to the need to acquire skills that ensure the integration of the family in the care of the newborn.

#### *Strategies developed by healthcare professionals to ensure the bond between mother and child*

Early attachment is recognized as one of the first actions in a newborn's life that facilitates and strengthens the emotional bond, in addition to other benefits. However, breastfeeding is often neglected, either because priority is given to the delicate condition of the premature infant or because there is currently a gap in formal evidence on the cost-benefit of adding this task to intensive care units, as it is rarely recorded or studied.<sup>(34)</sup>

In this context, healthcare personnel with experience in breastfeeding support the practice, agreeing on



two aspects: the promotion of a culture of exclusive breastfeeding, where institutions guarantee contact and participation in the recovery of the newborn, and a unified standard, i.e., that all mothers receive the same clear information from any health unit, avoiding confusion due to training differences among different actors; and secondly, quality, both in the education service and the recording and monitoring of these activities.<sup>(34)</sup>

Filippa et al.<sup>(35)</sup> highlight how harmful it is to the mental health of newborns at a critical stage in their development to be admitted to the NICU; factors such as altered sensory exposure, exposure to painful procedures, and detachment can result in poor neuropsychological maturation, added to the fact that in the vast majority of cases they are admitted due to prematurity, which adds a severe imbalance in fetal brain development. Early vocal contact (EVC) is proposed, significantly reducing critical events such as hypoxia, bradycardia, or apnea and keeping the baby calm upon awakening and during wakefulness. It has been shown that, although these babies have delays in various areas compared to their full-term counterparts, EVC manages to counteract several of the problems in addition to reassuring the mother and child.

Another emerging option is music therapy, which recreates the sounds heard in the fetal stage, such as the mother's heartbeat, voices, and others. Since abnormal stimuli prevent the baby from developing optimally, this therapy seeks to provide familiar stimuli that the baby perceives as safer.<sup>(36)</sup>

In conjunction with these practices, teaching attachment behaviors to mothers with premature babies can provide more effective interaction between the pair. Short-term progress in the health of newborns has even been demonstrated, considering the time required to achieve complete oral feeding and reach discharge weight.<sup>(37)</sup>

Health professionals must reinforce their knowledge of psychological and emotional aspects of the neonatal and maternity environment, as some professionals are unaware of specific beneficial outcomes for both parents and families facing this situation. This is in order to achieve comprehensive care.<sup>(38)</sup>

Likewise, parents must be aware of the interventions performed on newborns. Therefore, training should be provided on the operation of the health equipment and the care provided to newborns during their stay in the hospital so that parents understand that this is essential for the baby's rehabilitation and, in turn, remain calm.<sup>(39)</sup> On the other hand, Sharifi et al.<sup>(40)</sup> report that face-to-face educational activities are highly beneficial. However, they mention that these can be complemented by the use of technology, i.e., reliable applications, to educate parents and address any concerns they may have.

According to Im et al.<sup>(41)</sup>, nursing professionals should do everything necessary to support mothers of premature babies, allowing them to care for their babies and support their maternal role through kangaroo care and direct breastfeeding. Continuous hospital support for breastfeeding and early milk extraction are positive and beneficial aspects for reducing postpartum depression, strengthening mothers' confidence, and promoting the proper development of the emotional bond between mother and baby.<sup>(42)</sup>

Similarly, Kynoe et al.<sup>(43)</sup> mention that communication between healthcare personnel and mothers in the NICU is crucial to creating a pleasant, safe, and comfortable environment during the baby's hospitalization. Suppose they do not share the same language and culture. In that case, nurses should consider the situation and adapt to strategies that allow them to interact with mothers, such as using body language and simple words. The purpose is to inform, guide, and give appropriate instructions on newborn care, such as breastfeeding or changing a diaper.

Therefore, achieving a good bond that ensures the baby's proper neuropsychological development in the short and long term and the mother's mental and emotional health results in proper attachment. A common factor in the different practices is the involvement of the mother or family in the process. However, active communication between the family, healthcare personnel, and nursing staff is essential regardless of the procedure.

## CONCLUSIONS

The complexity of the conflicts faced by mothers due to separation and distancing from their children in critical care services leads to a breakdown in the emotional bond, resulting in neuropsychological problems in the baby and a variety of feelings on the part of the mother. Given this, it is necessary to implement programs that involve the management of both emotional and psychological difficulties that arise in mothers, as well as practical workshops where they can carry out simulations regarding the care or management of the newborn. Therefore, the support of healthcare personnel trained in this area is crucial to involve the mother in the care of the baby, thus helping to improve the clinical development and evolution of the newborn.

Therefore, more structured studies are needed because the results provide limited information on the long-term impact or consequences for premature newborns. The purpose is to address these research gaps and obtain more criteria to help understand the situation of mothers and children in critical care services, contributing to the well-being of the pair by considering these challenges.

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## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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