Health Leadership and Quality of Life. 2023; 2:33
doi: 10.56294/hl202333

ORIGINAL

Family integration and skin-to-skin contact with the newborn favors the recovery of the hospitalized patient: experiences of its implementation in an Obstetric Critical Care Unit

La integración de la familia y el contacto piel a piel con el Recién Nacido favorece la recuperación de la paciente internada: experiencias de su implementación en una Unidad de Cuidados Críticos Obstétricos

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Cite as: Quintana-Honores M, Corvalán P, Gironda-Durán J. Family integration and skin-to-skin contact with the newborn favors the recovery of the hospitalized patient: experiences of its implementation in an Obstetric Critical Care Unit. Health Leadership and Quality of Life. 2023; 2:33. https://doi.org/10.56294/hl202333

Submitted: 26-07-2023 **Revised:** 01-10-2023 **Accepted:** 29-11-2023 **Published:** 30-11-2023

Editor: Dr. Mileydis Cruz Quevedo

ABSTRACT

Introduction: skin-to-skin contact (COPAP) on the maternal thorax allows the preterm newborn to experience tactile, auditory, and proprioceptive stimuli, heart rate, the sound of the flow of the great vessels and maternal caresses while being held; this stimulates the self-regulation necessary for the survival of these infants.
Aim: to describe the experiences in the implementation of a protocol of family integration and skin-to-skin contact with the newborn in order to favor the recovery of the patient hospitalized.
Methods: a non-experimental, analytical study was carried out in health systems and services. The study alternatively used secondary source data from technical documentation of the sector and statistical records of the service.
Results: regarding the characteristics of the puerperal women who participated in the skin-to-skin contact protocol, those aged between 25 and 30 years predominated, with an interperiod growth of 21,9 %. The most frequent pathologies were Severe Eclampsia and Pre-Eclampsia; only 4 pathologies were found with negative growth. Finally, according to the distribution of RN admission according to the mother's hospitalization day, we found a growth in hospitalizations longer than 4 days, and a decrease in those that were 3 days, this indicator remained in general with growth.
Conclusions: It can be affirmed that skin-to-skin contact is a recommended, beneficial, and safe practice. The availability of a protocol agreed upon by the services involved makes it possible to apply it as a routine care procedure.

Keywords: Skin-to-Skin Contact; Newborn; Early Intervention; Puerperium.

RESUMEN

Introducción: el Contacto Piel a Piel (COPAP) sobre el tórax materno permite que el recién nacido prematuro experimente estímulos táctiles, auditivos y propioceptivos, el ritmo cardiaco, el sonido del flujo de los grandes vasos y las caricias maternas mientras es sostenido; esto estimula la autorregulación necesaria para la supervivencia de estos niños.
Objetivo: describir las experiencias en la implementación de un protocolo de integración de la familia y el contacto piel a piel con el Recién Nacido con la finalidad de favorecer la recuperación de la paciente internada.
Métodos: se realizó un estudio analítico, no experimental, en sistemas y servicios de salud. El estudio utilizó

alternativamente datos de fuentes secundarias las provenientes de documentación técnica del sector, y registros estadísticos del servicio.
Resultados: en relación con las características de las puérperas que participaron en el protocolo de contacto piel a piel, predominan las que tenían edades entre 25 y 30 años, con un crecimiento interperiodos del 21,9 %. Las patologías más frecuentes fueron la Eclampsia Grave y la Pre-Eclampsia, solo se encontraron 4 patologías con crecimiento negativo. Por último, según la distribución de ingreso de RN según día internación de la madre, se encontró un crecimiento en las internaciones mayores a 4 días, y un decrecimiento de aquellas que fueron de 3 días, este indicador se mantuvo en general con crecimiento.
Conclusiones: se puede afirmar que el contacto piel a piel es una práctica recomendada, beneficiosa y segura. Disponer de un protocolo consensuado entre los servicios implicados permite aplicarlo como un procedimiento de cuidados habituales.

Palabras clave: Contacto Piel a Piel; Recién Nacido; Intervención Temprana; Puerperio.

INTRODUCTION

Nursing care stands as the central focus of professional practice, with nursing models and theories rooted in a humanistic approach to care.

In this way, Jean Watson has contextualized nursing within the field of art and science, positioning it as the primary ambassador in addressing the challenge of care as part of the human condition.[1]

Professional care is a tool to aid others; represents a mode of interacting with individuals that carries with it a nursing responsibility to the patient. This engenders an individualized care, where the technical and humanistic aspects complement each other to provide comprehensive care.[2]

Nursing encompasses a myriad of care responsibilities in its role as the healthcare provider for patients. While certain attentions are conspicuously evident and duly documented in nursing records and medical histories, there exist other interventions, commonly referred to as "invisible care", that nursing personnel often perform almost instinctively. These actions feel so inherent in their practice that their significance is not always acknowledged, and consequently, they are not recorded anywhere. Consequently, it becomes imperative to scrutinize the visibility and invisibility of care through an ethical perspective, as it imbues the caregiving process with a humanizing touch, irrespective of whether it is seen or not. Let's remember the ethical dimension of care, recognizing that decisions made concerning the patient must be enveloped in a commitment to preserving human dignity.[3]

When we refer to invisible care, we are talking about actions that bear significant implications for the recovery of patients, especially in critical care services where individuals find themselves vulnerable and bereft of personal belongings and the comforting presence of loved ones. In essence, invisible care entails providing support to individuals in attaining their health objectives and promoting their innate capabilities. While these forms of care are often intangible, they contribute to the well-being and improvement of individuals, as much or even more than technical and/or delegated actions focused on the patient's physical/clinical aspects. The care that nursers render invisible often becomes prominently visible to patients, and its value is increasingly acknowledged every day. Invisible care pertains to those intentional actions by nursers that are not initially recordable, in contrast to those deemed more professionally oriented, which are susceptible to documentation. Despite their professional nature, these intentional actions are not documented in the medical history, allowing nurses to characterize them as invisible care.[3]

The perspective showed by theorist Jean Watson underscores the necessity for care to be profoundly humanitarian, transcending mere hospitality to encompass all facets of patient care. This involves a conscientious awareness of the quality of attention provided, extending kindness in the manner one wishes to be addressed, instilling confidence in patients, actively listening to their concerns to offer motivating responses, demonstrating genuine interest in their emotional well-being, and simultaneously fortifying their emotional state. This approach aims to avoid mechanical and detrimental care, which patients perceive when they are not treated with kindness.[4]

The moments lived during patient care are transcendent, imprinting enduring memories of their recovery and how much love received to facilitate their healing. Jean Watson, in her work, identifies key categories of significant behaviors experienced in the patient-nurse dynamic, shedding light on the reasons why human being is a focal point in the study of nursing care. This is manifested through: the exploration of patient's feelings; the provision of emotional and physical support; nurse's characteristics; patient proactivity; the prioritization of care; and empathy.[4]

Skin-to-skin contact (SSC) on the maternal thorax provides the preterm newborn with a multisensory experience involving tactile, auditory, and proprioceptive stimuli. This contact exposes the infant to the

maternal heart rate, the sound of the flow of the great vessels and maternal caresses while being held; stimulating self-regulation vital for the survival of these infants. Currently, extensive evidence underscores the benefits of skin-to-skin contact for preterm newborns, suggesting its positive impact on their growth and neurological and cognitive development. Key indicators of these benefits include: improved oxygenation, stability of vital parameters, a reduction in episodes of apnea, and extended periods of sleep, contributing to the overall organization of the newborn. Beyond enhancing the mother-child bond, skin-to-skin contact progressively promotes weight gain, reinforces immunological responses, facilitates gastric emptying, and establishes a conducive environment for prolonged and successful breastfeeding.[5]

The benefits that the mother gains through skin-to-skin contact with her baby enable her to maintain an emotional balance. It refines her level of perception to detect her child's reactions and emotions, builds greater confidence and security to carry out basic care for the child, and above all, there is an increase in milk production for an extended breastfeeding period. From a psychological standpoint, a cascade of affective and emotional interactions is triggered, progressively and securely strengthening the mother-child bond through caresses, touch, gentle voice tone, and the heartbeat. This process sharpens behavioral development, providing sensory stimulation and reinforcing psycho-affective interaction in cognitive and communicative development.[5]

Among the myriad relationships a child establishes, the most significant is often deemed to be the mother-child relationship. Examining this through a psychological perspective and drawing upon theories such as Bowlby's, which asserts that "early experiences of relationships, especially with the mother, play a crucial role in the child's development and serve as a powerful mechanism for shaping present and future relationships".[6]

This stage is the most crucial in the life of every human being as it establishes the groundwork for the development of personality, which becomes more defined over time. Concerning the mother-child bond, numerous factors interfere with its structure, including; poverty, culture, and the family and social environment. In the context of research, certain key factors emerge: the first one of them, considering social, cultural, and generational changes, as advocated by the Program for Supporting the Construction of Early Childhood Policy; the woman's involvement during this period introduces distinct challenges in navigating the modification of traditional roles. Engaging in multiple tasks, which portray her as a productive and skillful woman, may lead mothers to spend extended periods away from their babies. This absence for short or long periods, influenced by several situations such as, work, study, household responsibilities, maintaining a private and social life, and others remaining responsibilities, impacts the dynamics of the relationship and bonding established between mother and child.[6]

Cultural shifts and the redefinition of traditional gender roles for women, who are now actively integrated into the labor market, have transformed conventional modes of care and attention for children under six years old. The responsibility is no longer exclusively to mothers, as the role of fathers is now acknowledged, and the involvement of other socializing agents within the family unit (such as grandmothers, aunts, and older siblings) is recognized. These new forms of early childhood care demand the fortification of paternal bonds and the establishment of robust family and community support networks, to reduce factors that can impact child development, including conditions of mistreatment, neglect, and emotional detachment. These factors, in turn, influence the physical and emotional well-being of the child, and thus, childhood development.[7]

Admission to an Intensive Care Unit elicits feelings of anxiety, stress, and constant fear among both patients and their relatives. These emotions are exacerbated by a restrictive visitation schedule. Numerous studies demonstrate the advantages of implementing open-doors policies, aligning with healthcare models focused on both the patient and their family.[8]

According to Garzarón Rupérez (2019), intensive care units must possess the following characteristics:[9]

- The units within this service must have the capability to stabilize critically ill patients at any given moment, equipped with a vast array of specific materials and machines tailored for each case.
- Healthcare professionals, in addition to being qualified for emergency interventions, must possess the capability to attend and monitor all patients under their care continuously. Therefore, these units are generally large spaces where all patients share the same room. Open doors policy in the intensive care unit.
- The environment and situation which patients find themselves is inherently stressful, distressing, and worrying, as they are surrounded by machines, healthcare personnel, and other patients.
- Given the existence of a limited visiting schedule, families cannot accompany the patient throughout the entirety of their illness, resulting in strong feelings of stress and a perceived loss of control over the situation.

Most intensive care units adhere to a restrictive visitation policy, primarily for the convenience of healthcare professionals. Currently, numerous studies advocate for the improvement of benefits for patients, families, and professionals through the implementation of an open-door unit. The barriers to such a shift are more psychological than physical, requiring new education, training, and habit changes. Through this transformation,

families can actively participate in the fundamental care of the patient, always under professional supervision; fostering increased closeness and reducing stress for both the patient and the family.[8]

The environment and situation which patients find themselves is inherently stressful, distressing, and worrying, as they are surrounded by machines, healthcare personnel, and other patients. Given the existence of a limited visiting schedule, families cannot accompany the patient throughout the entirety of their illness.[10]

Khaleghparast, Jooalee et al. assert that the separation from loved ones, such as family, contributes to heightened suffering for critically ill patients, exacerbating their malaise and traumatic hospitalization experiences. They also confirm that family visits reduce anxiety and distress in their situation. Therefore, by the elimination of restricted visiting hours, the objective is to improve the well-being of patients, minimize traumatic experiences, and simultaneously, educate families on the necessary techniques for competent care once the patient has returned home.[11]

Moreover, the presence of family members in these units, facilitates the maintenance of a connection between them and the patients, fostering improved communication between family members and healthcare professionals. In the 1990s, in our country, a movement was initiated to advocate for the relaxation of visitation rules in these units. Since then, several studies have been conducted in favor of open-door policies in the ICU, demonstrating the benefits for patients, family, and even professionals. An open and flexible visitation policy enables family members to strike a balance between caring for the patient and managing their daily life responsibilities.[9]

This research article aims at describing the experiences in the implementation of a protocol of family integration and skin-to-skin contact with the newborn in order to favor the recovery of the patient hospitalized.

METHODOLOGICAL DESIGN

Type of study and context

A non-experimental, analytical study was carried out in health systems and services.

Source of Data

The study alternatively employed secondary source data from technical documentation of the sector and statistical records of the service.

For the description of the identified management processes, information was gathered from records, and indicators for the situation were observed both before and after the implementation of the process management.

Techniques and Procedures

The following techniques and procedures were used for data gathering, organizational management indicators were evaluated.

Ethical aspects

This study was conducted following the national regulation for research in Human Health (Resolution 1480/11 of the Ministerio de Salud de la Nación). The survey was anonymous and applied after obtaining the approval of informed consent, where the researcher explicitly committed not to disclose the data to third parties, and pledge not to reveal any information that could identify the respondents.

RESULTS

Main features of the protocol

1. Once the newborn is stabilized, consult with the pediatrician and anesthesiologist to discuss the feasibility of conducting SSC within the operating room.
2. Substitute the initial cloth with a dry and warm one and don a cap on the newborn.
3. Clamp and cut the umbilical cord, using an identification clamp with a barcode.
4. Affix an identification bracelet to the newborn's ankle.
5. If circumstances and the temperature of the operating room permit, position the newborn on the maternal thorax, without touching the sterile field and in a position that does not interfere with the personnel work. One viable position could be perpendicular to the thorax, positioned as close to the chin as possible.
6. Maintain the newborn in this position, holding and monitoring their progress.

Admission criteria for the Obstetric Critical Care Unit (OCCU)

All patients who present one or more of the following signs will be admitted to the UCCO:

- RR >=30.
- O2 Sat. <=93.
- BP < 90/60 = capillary refill> 3 seconds.

https://doi.org/10.56294/hl202333

- All patients requiring oxygen therapy.
- It is noteworthy that admission to the OCCU includes all patients requiring treatment with oxygen.

Evaluation of organizational management indicators before and after the implementation of the protocol

Regarding the characteristics of the puerperal women who participated in the skin-to-skin contact protocol, those aged between 25 and 30 years predominated, with an interperiod growth of 21,9 % (table 1).

Table 1. Characterization of the puerperal women who participated in the skin-to-skin contact protocol (2019-2020)

Age range of patients	2019	2020	Growth rate
15 to 20 years	1	0	-100,0 %
20 to 25 years	71	99	39,4 %
25 to 30 years	84	92	9,5 %
35 to 40 years	56	67	19,6 %
Older than 40 years	21	26	23,8 %
Total	233	284	21,9 %

The most frequent pathologies were Severe Eclampsia and Pre-Eclampsia; only four pathologies were found with negative growth (table 2).

Table 2. Distribution of the puerperal women according to the most frequent pathologies (2019-2020)

Most frequent pathologies	2019	2020	Growth rate
Uterine Atony	14	28	100,0 %
Severe Eclampsia	88	95	8,0 %
Pre-Eclampsia	62	74	19,4 %
Gestational DM without complications	35	28	-20,0 %
Gestational DM with complications	11	18	63,6 %
Chorioamnionitis	7	5	-28,6 %
Septic Abortion	12	6	-50,0 %
Hyperemesis Gravidarum	4	3	-25,0 %
Pregnancy + Respiratory Disease + Covid 19	0	27	2700,0 %
Total	233	284	21,9 %

Although the total number of deaths were only 5, showing a 50 % increase compared to the 2019 period, positive growth rates were observed in two pathologies, one rate remained at 0, and another experienced a decrease (table 3).

Table 3. Distribution of deaths with the most frequent pathologies (2019-2020)

Pathologies	2019	2020	Growth rate
Uterine Atony	0	1	100,0 %
Septic Abortion	1	0	-100,0 %
Severe Eclampsia	1	1	0,0 %
Pregnancy + Respiratory Disease + Covid 19	0	1	100,0 %
Total	2	3	50,0 %

Finally, according to the distribution of newborn admission based on the mother's hospitalization day, a growth in hospitalizations longer than 4 days was found, and a decrease in those that were 3 days, this indicator remained in general with growth (table 3).

https://doi.org/10.56294/hl202333

Table 4. Distribution of newborn admission according to the mother's hospitalization day (2019-2020)

Newborn admission according to the mother's hospitalization day	2019	2020	Growth rate
1st day	95	126	32,6 %
2nd day	63	73	15,9 %
3rd day	28	12	-57,1 %
More than 4 days	10	23	130,0 %
No newborn admission	23	32	39,1 %
No reported	14	18	28,6 %
Total	233	284	21,9 %

DISCUSSION

The Safe and Family-Centered Maternity Care model involves a process of empowering the family; it aims to promote humanized care focused on the rights of the mother and child, contributing to enhancing the quality of care and reducing maternal and neonatal morbidity and mortality. [12]

By working under this paradigm and recognizing the importance of the first hour of life, there is a proposal for a radical change in the routine of receiving healthy newborns in the Delivery Room. This change entails organizing actions in a hierarchical manner, prioritizing the care that focuses on the well-being of the newborn, safeguarding their rights, respecting parental preferences, minimizing interference in the adaptation to extrauterine life, avoiding separation of the mother from her child, and facilitating and promoting the establishment of the mother-child bond and breastfeeding.[12]

Institutional birth places a commitment on the Perinatal Health Team to respect the characteristics of this unique and familiar event, transcendental in the individuals' lives.

The newborn has the right to be attended by a qualified professional capable of providing resuscitation if necessary, but who can also maintain an order in their actions that respects the situation in which the baby is immersed at the moment of entry into the world.

The reported maternal mortality rate attributed to COVID-19 ranges from 0,14 % to 0,8 %.[13] This mortality rate might seem elevated compared to pregnant patients without infection, but it could be influenced by underestimations in the total number of cases with COVID-19 infection due to the presence of asymptomatic or oligosymptomatic patients and the low number of deaths.

Indeed, in a systematic review involving 11,432 women, the odds ratio (OR) for death in pregnant women was higher when comparing patients with COVID-19 infection to non-infected patients (OR 2,85, 95% CI 1,08-7,52). However, this risk did not vary significantly when compared to non-pregnant women of reproductive age infected with COVID-19 (OR 0,96, 95% CI 0,79-1,118).[14]

Some authors suggest that the increased percentage of women admitted to intensive care may reflect a lower number of requirements in this patient group for therapy admission, rather than a greater seriousness of the disease.[15]

The incorporation of the concept of "Family-Centered Maternity Care" with unrestricted access for parents to the unit and hospital residence for mothers is recognized as a facilitating mechanism for implementing skin-to-skin contact.16 In the literature, it is reported that unrestricted access for parents is crucial, as the major difficulty encountered for skin-to-skin contact was that parents could only enter the NICUs during feeding hours. 17

Skin-to-skin contact is deemed safe for both the mother and the baby and provides numerous short and long-term benefits. It enhances the physiological stability of both the mother and the newborn in the immediate postpartum period. Newborns experience a transition with increased respiratory and thermal stability, stable glucose levels, and less crying, indicating lower stress levels.[18]

For mothers, skin-to-skin contact fosters increased maternal behaviors, instilling greater confidence in caring for their children and encouraging longer periods of breastfeeding. By enhancing maternal attachment, it prevents situations of violence, abandonment, or mistreatment and promotes a sense of security in the child over time.[7]

Based on the analysis of the results, two main types of actions can be supported based on the literature:[12,19]

- Time-sensitive actions: these include immediate, prolonged, and uninterrupted skin-to-skin contact between the mother and her child, timely umbilical cord clamping, and the initiation of breastfeeding. These actions unfold throughout the first hour of the newborn's life, and if delayed, they diminish the potential for their maximum benefits.
- Time-insensitive actions: while equally important, these actions can be executed after the initial set

of time-sensitive actions without impacting their outcomes. Some can be carried out simultaneously with time-sensitive actions, such as newborn identification, Apgar score calculation, and gestational age assessment; others can be performed after the first hour of life, including prophylaxis, a complete physical examination, anthropometry, and newborn bathing.

The teamwork of doctors, nurses, parents, and other professionals enables comprehensive care for the newborn; in this way, the emotional foundations of the mother/child bond are established through the implementation of skin-to-skin contact, which incurs no cost nor adverse effects. It is a matter of common sense, prioritizing humane treatment and addressing the basic and emotional needs of the baby and their family. This is achieved with a great deal of responsibility and professional commitment.[5]

CONCLUSIONS

In conclusion, it can be affirmed that skin-to-skin contact is a recommended, beneficial, and safe practice. The availability of a protocol agreed upon by the services involved makes it possible to apply it as a routine care procedure.

It is crucial to understand the significance of the first contact between mother and child, and the initial breastfeeding session within the first two hours of life, in order to take advantage of the newborn's sensitive period, as afterward, the child enters a phase of physiological post-birth sleep making interaction more difficult.

On the other hand, the involvement of nursing staff is indispensable in this process, and a noteworthy aspect is that special technical means are not required, only willingness, training, and proper monitoring. Reducing the separation time between mother and child and promoting the participation of the father ay integral roles in humanizing childbirth. This approach not only fosters a highly satisfying experience for the family but also brings about physiological benefits.

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FUNDING

The authors did not receive funding for the development of this research.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

AUTHORSHIP CONTRIBUTION

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