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**GOLDEN HOUR:
AN INTEGRATIVE LITERATURE REVIEW**

**HORA DOURADA:
UMA REVISÃO INTEGRATIVA DA LITERATURA**

**LA HORA DORADA:
UNA REVISIÓN INTEGRADORA DE LA LITERATURA**

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Abstract

Introduction: Early breastfeeding, started in the first hour of life, is essential for the success of exclusive breastfeeding, and is widely recommended by the WHO and UNICEF. However, adherence to practices such as immediate skin-to-skin contact and early encouragement of breastfeeding, components of the “golden hour”, still face institutional and cultural barriers, harming mother and baby. **Aim:** The aim of the study is to analyze the association of implementing the 'golden hour' with the success of early breastfeeding in mothers and newborns. **Methods:** Integrative Literature Review that aims to answer the question: What is the association between the implementation of the golden hour and the success of early breastfeeding in mothers and newborns? A search was carried out on the articles available in the databases of the Platform of the University of Évora – EDS Research, published between 2020 and 2024. Of the total of 274 articles, 12 articles were included in the corpus of the study. **Results:** There is a strong association between skin-to-skin contact and early initiation of breastfeeding, with success rates ranging from 70% to 93.9%. Techniques such as the Kangaroo method and breast crawl have also been shown to be effective in reducing the time to start breastfeeding. **Conclusions:** The studies analyzed show clear evidence that the implementation of skin-to-skin contact and the “golden hour” are effective in promoting and successful early breastfeeding. The “golden hour” is crucial to improve maternal and neonatal outcomes, and it is necessary to implement protocols, train health professionals, and overcome some institutional barriers to ensure adherence to these practices.

Keywords: Breastfeeding; Golden Hour; Newborn; Skin-to-skin Contact.

Resumo

Introdução: A amamentação precoce, iniciada na primeira hora de vida, é essencial para o sucesso do aleitamento materno exclusivo, sendo amplamente recomendada pela OMS e a UNICEF. No entanto, a adesão a práticas como o contacto pele a pele imediato e o estímulo precoce à amamentação, componentes da “hora dourada”, ainda enfrentam barreiras institucionais e culturais, prejudicando a mãe e o bebé. **Objetivo:** O objetivo do estudo consiste em analisar a associação da implementação da “hora dourada” com o sucesso da amamentação precoce em mães e recém-nascidos. **Métodos:** Revisão Integrativa da Literatura que visa responder à questão: Qual a associação da implementação da hora dourada com o sucesso da amamentação precoce, nas mães e recém-nascidos? Foi efetuada pesquisa dos artigos disponíveis nas bases de dados da Plataforma da Universidade de Évora – Pesquisa EDS, publicados entre 2020 e 2024. Do total de 274 artigos foram incluídos 12 artigos no *corpus* do estudo. **Resultados:** Existe uma forte associação entre o contacto pele a pele e o início precoce da amamentação, com taxas de sucesso variando entre 70% e 93,9%. Técnicas como o método Canguru e o *breast crawl* também demonstraram eficácia na redução do tempo para o início da amamentação. **Conclusões:** Os estudos analisados mostram evidências claras de que a implementação do contacto pele a pele e da “hora dourada” são eficazes na promoção e sucesso da amamentação precoce. A “hora dourada” é crucial para melhorar os *outcomes* maternos e neonatais, sendo necessária a implementação de protocolos, capacitar os profissionais de saúde e ultrapassar algumas barreiras institucionais para garantir a adesão a essas práticas.

Palavras-chave: Aleitamento Materno; Contacto Pele a Pele; Hora Dourada; Recém-Nascido.

Resumen

Introducción: La lactancia precoz, iniciada en la primera hora de vida, es esencial para el éxito de la lactancia materna exclusiva, siendo ampliamente recomendada por la OMS y UNICEF. Sin embargo, la adhesión a prácticas como el contacto piel con piel inmediato y el estímulo temprano a la lactancia, componentes de la “hora dorada”, aún enfrenta barreras institucionales y culturales, lo que perjudica a la madre y al bebé. **Objetivo:** El objetivo del estudio consiste en analizar la asociación de la implementación de la “hora dorada” con el éxito de la lactancia precoz en madres y recién nacidos. **Métodos:** Revisión integrativa de la literatura que busca responder a la pregunta: ¿Cuál es la asociación entre la implementación de la hora dorada y el éxito de la lactancia precoz en madres y recién nacidos? Se realizó una búsqueda de artículos disponibles en las bases de datos de la Plataforma de la Universidad de Évora – Búsqueda EDS, publicados entre 2020 y 2024. Del total de 274 artículos, se incluyeron 12 en el *corpus* del estudio. **Resultados:** Existe una fuerte asociación entre el contacto piel con piel y el inicio precoz de la lactancia, con tasas de éxito que varían entre el 70% y el 93,9%. Técnicas como el método Canguru y el *breast crawl* también demostraron eficacia en la reducción del tiempo para el inicio de la lactancia. **Conclusiones:** Los estudios analizados muestran evidencia clara de que la implementación del contacto piel con piel y de la “hora dorada” es eficaz en la promoción y éxito de la lactancia precoz. La “hora dorada” es crucial para mejorar los resultados maternos y neonatales, siendo necesaria la implementación de protocolos, la capacitación de los profesionales de salud y la superación de algunas barreras institucionales para garantizar la adhesión a estas prácticas.

Descriptores: Contacto Piel con Piel; Lactancia Materna; Hora Dorada; Recién Nacido.

Introduction

Breastfeeding is the most natural and healthy form of infant feeding, and its early initiation plays a crucial role in the success of lactation⁽¹⁾. The World Health Organization (WHO) recommends breast milk as the only food for newborns from birth to 6 months of age, defined as exclusive breastfeeding (EBF)^(2,3).

Early breastfeeding, within the first hour of life, is strongly recommended by the United Nations Children's Fund (UNICEF), WHO, and the American Academy of Pediatrics (AAP)⁽⁴⁻⁶⁾, and is one of the Ten Steps to Successful Breastfeeding established by the Baby-Friendly Hospital Initiative (BFHI) in 1991, with the primary goal of creating maternity hospitals that support breastfeeding. This initiative also emphasizes the need for skin-to-skin contact immediately after birth, mother-baby co-sleeping, and breastfeeding on demand, without the use of pacifiers or formula milk, unless medically advised⁽⁷⁻⁹⁾.

Annually, nearly 823 million deaths in children under 5 years could be prevented through proper breastfeeding practices⁽¹⁾. The first hour of the newborn's life, or the immediate transition between the uterus and the external environment, is also known as the golden hour. During this period, it is extremely important to practice and perform three care measures: delayed clamping of the umbilical cord (1 to 3 minutes after birth), promoting and maintaining skin-to-skin contact, and the early initiation of EBF, all of which are internationally recommended by WHO and UNICEF^(5,8,10,11,12).

Regarding the late clamping of the umbilical cord, the ideal moment would be after the cessation of blood circulation in it, leading to the cord becoming flattened and without pulse. Its short-term benefits include an increase in the volume of blood transfused to the baby (which results in an increase in hematocrit, hemoglobin, blood pressure, brain oxygenation, and erythrocyte flow, and consequently a lower likelihood of anemia), a lower incidence of intraventricular hemorrhage, and a reduction in the probability of late sepsis (after the first week of birth)^(8,12).

Skin-to-skin contact refers to the practice of placing the exposed newborn in a prone position directly on the mother's chest, without any clothing, immediately after birth, or as soon as possible. It was first described in 1970 as extra contact and later in Colombia as the Kangaroo Method. The benefits of this practice have become so widespread that it is now considered a fundamental part of BFHI, WHO, and UNICEF^(3,4,8).

Skin-to-skin contact regulates and maintains the baby's body temperature, improves cardiorespiratory stability, the effectiveness of the first breastfeeding, contributes to the increase in breastfeeding rates in the first four months of life, and to the increase in the duration of breastfeeding periods. Concurrently, this practice is associated with a reduction in painful procedures such as the use of a vacuum extractor, crying episodes, and signs of irritability in the newborn, as well as strengthening the emotional bond between mother and baby, improving sleep, and allowing for the colonization of the newborn with beneficial microorganisms from the mother's skin^(2,4,7,8,10,11).

WHO and UNICEF state that all mothers and babies should be kept together in shared accommodation after delivery and should be encouraged to have skin-to-skin contact in the first hour of the newborn's life, even with mothers who do not intend to breastfeed, facilitating and promoting the strengthening of the mother-baby bond^(9,10).

EBF soon after birth (colostrum – a yellowish biological fluid, rich in nutrients, growth factors, and antibodies) provides immediate benefits for the baby, such as, immune protection, neonatal morbidity and mortality prevention, reduction of the risk of childhood obesity, type 1 diabetes, asthma, and epilepsy, and is also associated with longer breastfeeding duration, longer exclusive breastfeeding time, better academic performance, and a higher intelligence quotient (IQ); as well as benefits for the mother, such as, a reduced risk of breast and ovarian cancer, and type 2 diabetes, the release of oxytocin – which consequently causes uterine contractility, and reduce maternal vaginal bleeding and postpartum hemorrhage, which account for 25% of maternal mortality worldwide⁽⁴⁻⁹⁾.

Worldwide, only 50% of newborns are breastfed during the first hour of life⁽⁶⁾. However, despite the WHO aiming to increase the exclusive breastfeeding rate by 50% globally by 2025⁽⁵⁾, only about 38% of newborns are exclusively breastfed⁽³⁾.

Currently, the first hour after birth is recognized as a critical period for the establishment and continuation of breastfeeding. During this period, the newborn exhibits breast-seeking behaviors, along with a sudden drop in maternal progesterone due to placental expulsion and a spike in prolactin, allowing the newborn to be fed. The breast-seeking behavior is a natural reflex of the newborn that is associated with a combination of sensory and neuroendocrine effects, which directly or indirectly help the newborn to move towards the breast and initiate breastfeeding. Generally, they are able to do that statically, without any assistance; however, some newborns need stimulation at their highest state of alertness, immediately after birth, for their initial latch to the breast. This stimulation can include touching the cheek or communicating with the newborn. For this biological process to occur, direct contact between the newborn and the mother in the first hour of life is crucial, referred to as skin-to-skin contact^(3,6,8,9).

Dystocic delivery by cesarean section delays the initiation of breastfeeding, delaying the first feeding and decreasing the likelihood of EBF. Furthermore, it can significantly delay the onset of lactation and increase the probability of complementary feeding. A characteristic of this type of delivery is the separation of the baby from the mother immediately after birth, in contrast to vaginal delivery^(1,9).

Considering all the previously mentioned benefits and the routine procedures in newborn care that may impede the implementation of good care practices during the first hour after birth, a literature review on the concept of the golden hour becomes essential.

Specialist nurses in maternal and obstetric health are integral members of a multidisciplinary team that supports pregnant women/couples in the immediate postpartum period, and whose main interventions and responsibilities include education, namely regarding the newborn's adaptation to extrauterine life, promot-

ing skin-to-skin contact and early breastfeeding. These practices are essential to ensure a healthy relationship within the triad. From this perspective, and based on these statements, the main objective of this work is to understand the association of the implementation of the golden hour with the success of early breastfeeding.

Methods

To systematize and streamline the study of the current topic, it is essential to conduct a literature search grounded in the methodological principles of an integrative literature review.

This literature review aimed to answer the following research question: What is the association between the implementation of the golden hour and the success of early breastfeeding in mothers and newborns?

The formulation of the research question, the definition of inclusion and exclusion criteria, and consequently the sample, followed the PI(C)O method (Participants; Interventions; Comparison – when applicable; Outcomes), as outlined by Santos, Pimenta, and Nobre (2007).

The inclusion and exclusion criteria defined for the selection of studies are scrutinized in Table 1.

Table 1: Inclusion and exclusion criteria of the study.

Selection Criteria	Inclusion Criteria	Exclusion Criteria
Participants	Studies involving mothers and newborns; studies conducted in maternity hospitals or health units that implemented practices related to the golden hour.	Studies with mothers and newborns who have serious complications (e.g.: neonatal death, premature births, or congenital anomalies).
Interventions	Studies that evaluate the implementation of the golden hour (e.g.: skin-to-skin contact, breastfeeding in the first hour of life, early stimulation for breastfeeding).	Studies that do not mention or assess practices related to the golden hour.
Comparison	Implementation of the golden hour.	Non-implementation of the golden hour.
Results	Studies that address the success of early breastfeeding as the main outcome.	Studies that do not address early breastfeeding or the success of this process.

The articles research in scientifically valid databases was conducted on the University of Évora Platform – EDS Research (Scopus; Web of Science; Library, Information Science and Technology Abstracts; CINAHL; Academic Search Complete; RCAAP), considering the scientific articles published between january 2020 and november 2024. The language used in the search was english, and the following keywords were used: Breastfeeding; Golden Hour; Newborn; Skin-to-skin Contact. These were combined using the AND boolean operators in the following way: (Breastfeeding) AND (Golden Hour) AND (Newborn) AND (Skin-to-skin Contact). In the research, only the articles available in full text were included. The sample was selected through reading the title, the abstract, and whenever there were doubts, through reading the full text.

Two hundred and seventy-four articles were identified, of which six were duplicates, two hundred and forty-two were excluded by title, eight were excluded by abstract, and six were excluded by full reading. After evaluating the remaining articles, twelve articles were included in the study *corpus*, with the selection process shown in Figure 1.

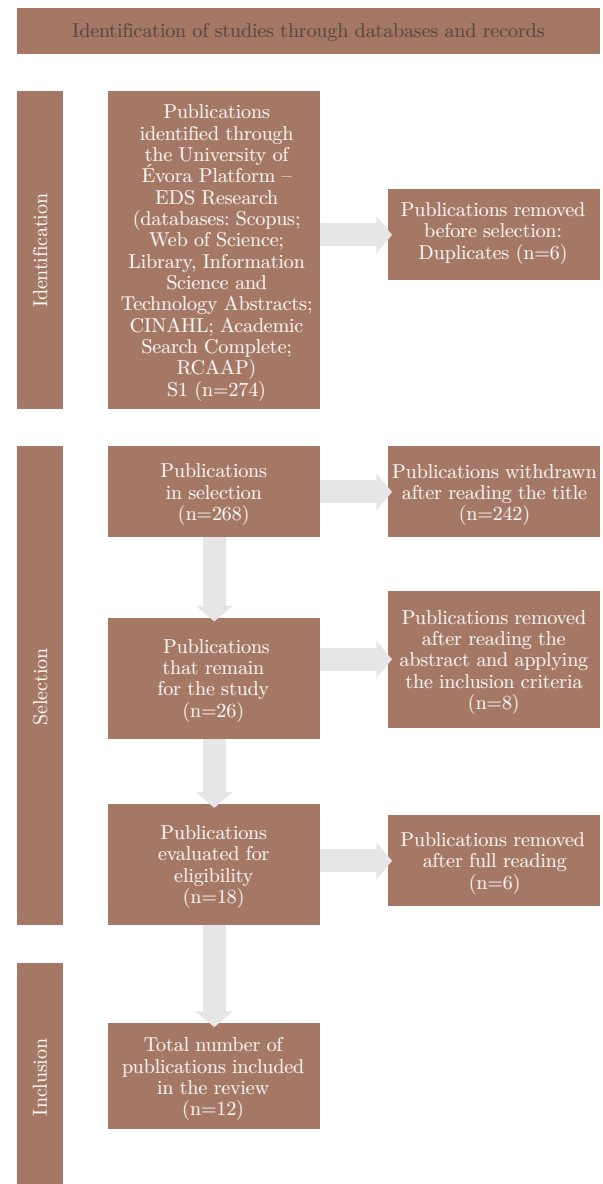


Figure 1: PRISMA flowchart of the study selection for the integrative literature review.

Source: Adapted from <https://www.prisma-statement.org/>

Presentation and Discussion of Results

From the twelve articles that constitute the corpus of the work, a critical analysis and evaluation were prepared through their complete reading, summarized below in Table 2, highlighting Author; Year; Country; Type of Study; Sample/Participants; Intervention/Objective; and Main Results.

The prevalence of skin-to-skin contact varies significantly among studies and according to various geographical contexts. Aboagye *et al* (2023) report a skin-to-skin contact adherence rate of 45.68% in Sub-Saharan Africa. Campos *et al* (2020) state that 60.1% of newborns in Brazil had skin-to-skin contact immediately after birth; however, this number decreases to 24.1% when skin-to-skin contact is only performed after immediate care of the newborn. In contrast, Monteiro *et al* (2023) report only a 7.1% adherence rate in Brazilian maternity hospitals.

Table 2: Studies scrutinized for the preparation of this integrative literature review.

Authors/Year/Country	Type of Study	Sample/Participants	Intervention/Objective	Results
Aboagye <i>et al</i> , 2023, Sub-Saharan Africa.	Cross-sectional.	Data collection from 45096 women across 17 Sub-Saharan African countries between 2015 and 2020, focusing on skin-to-skin contact practices and early breastfeeding initiation.	Analysis of the association between skin-to-skin contact, and early start of breastfeeding, between mother and baby, in Sub-Saharan Africa.	The study found a prevalence of 45.68% of skin-to-skin contact and 62.89% of early breastfeeding initiation. Skin-to-skin contact was positively associated with a higher likelihood of early breastfeeding initiation.
Campos <i>et al</i> , 2020, Brazil.	Transversal.	586 women and their newborns observed in a hospital setting.	Assessment of the prevalence of skin-to-skin contact (SSC) and breastfeeding, and the reasons for not carrying out these practices.	60.1% of newborns underwent SSC and 44.9% were breastfed immediately after birth. After the initial care, 24.1% underwent SSC and 69.3% were encouraged to breastfeed. The main barrier to SSC was the clinical condition of the newborn (47.7%).
Dudukcu <i>et al</i> , 2022, Turkey.	Transversal.	368 mothers with babies aged 6 to 24 months, divided into 2 groups: breastfed in the first hour vs. did not breastfeed.	Application of a semi-structured questionnaire to assess factors that affected breastfeeding in the first hour after birth.	Breastfeeding in the first hour was associated with vaginal births (69%) and a nutritional need of the baby by maternal decision (90.4%). Factors such as maternal pain, "lack of milk", and medical interventions limited its practice. The importance of properly planning prenatal care and providing greater support for high-risk pregnant women/ mothers and cesarean sections was emphasized.
Fantinielli <i>et al</i> , 2024, Brazil.	Integrative literature review.	7 studies analyzed after screening 15846 publications in databases (Virtual Health Library and Google Scholar).	Review of nursing practices in the first hour of the newborn's life.	Nursing care in the first hour is essential to reduce neonatal mortality, promote the mother-baby bond, and facilitate extrauterine adaptation. It emphasizes the need for professional training.
Gomes <i>et al</i> , 2023, Brazil.	Qualitative based on semi-structured interviews.	102 women observed in 2 hospitals participating in the "Adequate Birth" Project.	Evaluation of three practices in the first hour postpartum: skin-to-skin contact, breastfeeding, and delayed cord clamping.	Women reported access to the three analyzed practices, but the skin-to-skin contact time was less than the recommended (1 hour). Identified barriers included interruptions for neonatal care and transfer to the recovery room. The practices were valued by the women, highlighting the need to information during prenatal care to enhance maternal autonomy and improve their implementation.
Gurung <i>et al</i> , 2021, Nepal.	Observational.	6488 mothers and newborns in four public hospitals in Nepal.	Direct observation of immediate neonatal care practices, including skin-to-skin contact and delayed cord clamping.	Skin-to-skin contact increases the likelihood of early initiation of breastfeeding (49.5%), as well as delayed clamping of the cord (37%).
Hulman <i>et al</i> , 2024, Hungary.	Quantitative and cross-sectional.	2008 mothers, with children born after 37 weeks of gestation, analyzed based on an online questionnaire about perinatal conditions and breastfeeding.	Impact assessment of the type of delivery and postnatal conditions (skin-to-skin contact, breastfeeding on demand, and the use of pacifiers) during the period of exclusive breastfeeding.	Vaginal deliveries showed a higher incidence of skin-to-skin contact (91.2%) compared to cesarean sections (27.3%). Skin-to-skin contact within 30 minutes increased exclusive breastfeeding (5.05 months). Cesarean sections reduced the likelihood of early breastfeeding and prolonged the use of formula milk. The use of pacifiers is associated with a shorter duration of exclusive breastfeeding (4.38 months) compared to not using pacifiers (5.51 months).
Iqbal <i>et al</i> , 2022, Pakistan.	Quasi-experimental.	120 healthy mothers and newborns (60 in the Kangaroo Mother Care group and 60 in the conventional care group).	Comparison between the Kangaroo mother care method and conventional care regarding the success and time of the first breastfeeding.	The Kangaroo mother care method allowed for greater success in the first breastfeeding (63.3% vs. 45%) and less time to initiate breastfeeding (30.24 ± 7.98 min vs. 54.15 ± 10.52 min).
Monteiro <i>et al</i> , 2023, Brazil.	Transversal.	105 mothers of uncomplicated births in two maternity hospitals in Brazil.	Direct observation of the care provided to the mother-baby dyad to characterize adherence to immediate skin-to-skin contact in the first hour of life.	Only 7.1% of the mother-baby dyads properly performed the golden hour. Early interruption was common due to neonatal procedures. Maternity hospitals show gaps in adherence to good practices to ensure immediate and continuous skin-to-skin contact in the first hour.
Prian-Gaudiano <i>et al</i> , 2024, Mexico.	Observational (case-control).	362 babies born between 2016 and 2022.	Impact assessment of skin-to-skin contact (SSC) in the first hour of life related to the initiation and duration of exclusive breastfeeding.	SSC in the first hour was associated with a higher frequency of exclusive breastfeeding at 3 months (81.5% vs. 58%) and 6 months (73.5% vs. 51.2%). Promoting and respecting this practice is crucial for the mother and baby.
Rana <i>et al</i> , 2024, India.	Experimental.	120 women with full-term vaginal births, divided between groups of breast crawl technique (SBC) and skin-to-skin contact (SSC).	Comparison between standard breast crawl technique vs. skin-to-skin contact, regarding maternal and neonatal outcomes.	The SBC technique was associated with a shorter time to the start of breastfeeding (23.18 min vs. 30.58 min), shorter time for placenta expulsion, less pain during the performance of episiotomy repair, and greater maternal satisfaction.
Tahsina <i>et al</i> , 2020, Bangladesh, Nepal and Tanzania.	Observational.	23724 women and 7802 newborns were observed for at least 1 hour after birth.	Evaluation of immediate care practices for newborns (skin-to-skin contact, early breastfeeding, and delayed cord clamping)	The adherence to early breastfeeding was low (10.9%) and was overestimated in hospital records (85.9%) and in interviews (53.2%). Skin-to-skin contact was strongly associated with early breastfeeding (70%-93.9%), but also with other practices (immediately drying the baby and late clamping of the cord)

Prian-Gaudio *et al* (2024) report that in Mexico, and in other parts of the world, skin-to-skin contact during the first hour of life is significantly associated with the ideal start and a longer duration of early breastfeeding.

The discrepancies found in these studies may be attributed to factors related to the institutions where they were conducted, such as the lack of knowledge/competence among health professionals or local cultural practices⁽⁹⁾. In maternity hospitals with low adherence to the golden hour, there are some challenges, namely interruptions of skin-to-skin contact for neonatal care, lack of human resources, or even unawareness of the importance of this clinical practice. Thus, it becomes necessary to promote clear policies and to train health professionals to improve the prevalence of skin-to-skin contact immediately after birth. There is also a positive association between skin-to-skin contact and the success of early breastfeeding, with Aboagye *et al* (2023) and Tahsina *et al* (2020) noting an increased probability of success between 70% and 93.9%. Hulman *et al* (2024) also state that vaginal births have a higher frequency of skin-to-skin contact (91.2%), and this type of birth is associated with a longer duration of exclusive breastfeeding.

The results obtained in the studies included in this literature review reinforce the effectiveness of skin-to-skin contact as a primary strategy for the success of early breastfeeding, especially when implemented in the first hour of life. Its practice promotes the release of maternal oxytocin, as well as the thermoregulation of the newborn, strengthening the mother-baby bond. However, difficult births by cesarean section continue to be a considerable barrier to skin-to-skin contact, often resulting in the newborn being placed in heated incubators until their mother/couple is available to receive them, with this practice having detrimental effects for both the baby and the mother, particularly in establishing and maintaining early breastfeeding⁽³⁾.

The studies also mention the use of supplementary and specific techniques to assist breastfeeding, namely the Kangaroo method, referenced by Iqbal *et al* (2022), which increases the success of the first breastfeeding (63%) compared to mothers of newborns who did not use it (45%). By using this method, they

considerably reduced the time required to initiate breastfeeding. Regarding the breast crawl technique, it showed a faster onset of breastfeeding and, concurrently, greater maternal satisfaction⁽⁶⁾.

The effective implementation of skin-to-skin contact and early breastfeeding requires an environment and practice of humanized care. The existence and correct use of protocols, as well as the continuous training of health professionals, are essential to overcome some barriers and challenges they face in clinical practice. Campos *et al* (2020) and Monteiro *et al* (2023) identified that in 47.7% of the situations where skin-to-skin contact and early breastfeeding were not performed, this was due to the clinical conditions of the newborn. Fantinelli *et al* (2024) reports that professional competence continues to be a current challenge for the implementation of practices related to the golden hour.

The success of skin-to-skin contact and early breastfeeding depends on a joint effort between institutions, health professionals, evidence-based practices, and cultural changes. Activities such as the Baby-Friendly Hospital Initiative play a crucial role in contexts of low adherence to practices related to the golden hour, and specialist nurses in maternal and obstetric health need to ensure its continuity, especially in contexts of low adherence to the mentioned practices.

The results obtained from the researched scientific literature allowed us to answer the structured initial question. The analyzed studies show clear evidence that the implementation of skin-to-skin contact and the golden hour are effective in promoting and succeeding in early breastfeeding, improving maternal and neonatal outcomes. However, it is necessary to address institutional and cultural barriers to ensure wider adherence to these practices.

Conclusion

The implementation of the golden hour, which includes immediate skin-to-skin contact practices and encouragement for breastfeeding in the first hour of life, shows a consistent positive association with the

success of early breastfeeding in different contexts. Skin-to-skin contact significantly increases the likelihood of early initiation of breastfeeding, and the use of additional techniques such as breast crawl or Kangaroo method, reduces the time to initiate breastfeeding and prolongs the duration of exclusive breastfeeding. Despite barriers, such as, clinical conditions of the newborn and interruptions for neonatal care, the data evidence that the golden hour is crucial for strengthening the mother-baby bond, promoting breastfeeding, and improving maternal and neonatal outcomes.

References

1. Iqbal A, Iqbal T, Bashir F, Bilquees, Aslam S, Anjum S. Comparison of Kangaroo Mother Care with Conventional Care in Newborns in Terms of Frequency of Successful First Breastfeeding and Time to Initiate Breast Feeding. *Pakistan Armed Forces Medical Journal* 2022;72(3):1008-1012. Available from: <https://doi.org/10.51253/pafmj.v72i3.6889>
2. Gurung R, Sunny A, Paudel P, Bhattarai P, Basnet O, Sharma S, Shrestha D, Sharma S, Malla H, Singh D, Mishra S, Ashish K. Predictors for timely initiation of breastfeeding after birth in the hospitals of Nepal – a prospective observational study. *International Breastfeeding Journal* 2021; 16(85):1-7. Available from: <https://doi.org/10.1186/s13006-021-00431-y>
3. Prian-Gaudiano A, Horta-Carpinteyro D, Sarmiento-Aguilar A. Relationship between skin-to-skin contact during the first hour of life and duration of exclusive breastfeeding. *Boletín Médico del Hospital Infantil de México* 2024; 81(1):10-15. Available from: <https://doi.org/10.24875/BMHIM.23000160>
4. Aboagye R, Ahinkorah B, Seidu A, Anin S, Frimpong J, Hagan Jr J. Mother and newborn skin-to-skin contact and timely initiation of breastfeeding in sub-Saharan Africa. *PLOS ONE* 2023;18(1):1-15. Available from: <https://doi.org/10.1371/journal.pone.0280053>
5. Dudukcu F, Aygor H, Karakoç H. Factors Affecting Breastfeeding within the First Hour After Birth. *Nigerian Journal of Clinical Practice* 2022;25(1):62-68. Available from: https://doi.org/10.4103/njcp.njcp_703_20
6. Rana P, Swain D. Efficacy of the Standard Breast Crawl Technique on Maternal and Newborn Outcomes After Term Vaginal Birth: A Randomized Controlled Trial. *Journal of Midwifery & Women's Health* 2023;68(4): 473-479. Available from: <https://doi.org/10.1111/jmwh.13487>
7. Campos P, Gouveia H, Strada J, Moraes B. Skin-to-skin contact and breastfeeding of newborns in a university hospital. *Revista Gaúcha de Enfermagem* 2020;41(esp):1-10. Available from: <https://doi.org/10.1590/1983-1447.2020.20190154>
8. Gomes M, Nicida L, Oliveira D, Rodrigues A, Torres J, Coutinho A, Cravo B, Dantas J, Oliveira T, Brandão P, Domingues R. Care at the first postnatal hour in two hospitals of the Adequate Birth Project: qualitative analysis of experiences in two stages of the Healthy Birth research. *Reproductive Health* 2023;20(14):1-13. Available from: <https://doi.org/10.1186/s12978-022-01540-5>
9. Hulman A, Annamária Pakai, Tímea Csákvári, Keczel V, Varga K. The Impact of Mode of Delivery and Postpartum Conditions on Breastfeeding: A Cross-Sectional Study. *Healthcare* 2024;12(2):248-8. Available from: <https://doi.org/10.3390/healthcare12020248>
10. Fantinelli L, Fiorentino M, Bravo D, Santos M, Oliveira J, Simião C, Hatos J, Damini N. Assistência de Enfermagem na Primeira Hora de Vida: Revisão de Literatura. *Brazilian Journal of Surgery and Clinical Research – BJSCR* 2024; 48(1):38-42. Available from: <http://www.mastereditora.com.br/bjsr>
11. Monteiro B, Silva V, Bezerra C, Pinto E, Souza N. Immediate contact between mother and newborn in the first hour of life: a cross-sectional study. *Rev Rene*. 2023;24(e81594):1-10. Available from: <https://doi.org/10.15253/2175-6783.20232481594>
12. Tahsina T, Hossain A, Ruysen H, Rahman A, Day L, Peven K, Rahman Q, Khan J, Shabani J, Ashish K, Mazumder T, Zaman S, Ameen S, Kong S, Amouzou A, Lincetto O, Arifeen S, Lawn J, EN-BIRTH Study Group. Immediate newborn care and breastfeeding: EN-Birth multi-country validation study. *BMC Pregnancy and Childbirth*, 2020;21,Suppl 1(237): 1-17. Available from: <https://doi.org/10.1186/s12884-020-03421-w>

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 JR: Study coordination, study design, data
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 discussion of results.

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