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Effect of Early Skin-To-Skin Contact Intervention By Nurses on Physiological Stability Mother and Baby in RSIA Mutiara Bunda Padang

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ABSTRACT

Skin-to-skin contact is an essential early intervention that supports physiological stability in mothers and newborns during the immediate postnatal period. Although its benefits are well documented, consistent implementation in perinatal nursing practice remains limited. Purpose: This study aimed to evaluate the effect of early skin-to-skin contact interventions performed by nurses on the physiological stability of mothers and newborns at RSIA Mutiara Bunda Padang. Methods: A quantitative study with a quasi-experimental pre–post test design was conducted involving 20 mother–infant pairs who received skin-to-skin contact for 60 minutes after delivery. Maternal physiological parameters included heart rate and body temperature, while newborn parameters included body temperature, respiratory rate, and heart rate. Data were analyzed using descriptive statistics and paired t-tests with a significance level of 0.05. Results: The findings showed improved physiological stability following the intervention. Newborn body temperature increased significantly from 36.5°C to 37.2°C ($p < 0.05$), indicating better thermal regulation. Maternal heart rate decreased significantly from 95 bpm to 85 bpm ($p < 0.05$), reflecting improved physiological adaptation. Bivariate analysis confirmed a significant effect of early skin-to-skin contact on physiological stability in both mothers and newborns ($p < 0.05$). Conclusion: Early skin-to-skin contact interventions by nurses are effective in improving maternal and neonatal physiological stability and should be integrated as a standard practice in postnatal care.

Keywords: *Skin Contact, Physiological Stability, Mother and Baby, Postpartum*

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INTRODUCTION

Postpartum maternal and infant health is a crucial aspect of obstetric care that requires serious attention from medical personnel. During the postpartum period, mothers often experience various physiological and psychological problems, such as postpartum pain, bleeding, fatigue, impaired uterine involution, and stress and anxiety due to changes in body roles and conditions. Meanwhile, newborns are also vulnerable to physiological problems, such as unstable body temperature, respiratory disorders, unstable oxygen levels, and difficulties in adapting from intrauterine to extrauterine life. One intervention that can improve the quality of postpartum care is early skin-to-skin contact, the practice of placing a naked baby on the mother's chest immediately after birth. This intervention allows for direct physical contact that provides various physiological benefits, including helping regulate the baby's body temperature, stabilizing the heart rate and oxygen levels, stimulating the production of the hormone oxytocin in the mother, and strengthening the emotional bond between mother and baby. Therefore, the implementation of early skin-to-skin contact interventions by nurses in health care facilities, such as Rsia Mutiara Bunda Padang, is important to study to determine its impact on the physiological stability of mothers and babies after delivery. (Moore et al., 2016). However, despite much scientific evidence supporting this practice, its application in clinical practice in Indonesia, particularly in maternity hospitals such as Rsia Mutiara Bunda Padang, is still limited.

The main problem found is the non-optimal application of this technique in clinical practice. Some hospitals focus more on treating post-natal medical problems without paying enough attention to interventions that support the bonding process and physiological stability of mother and baby (Bergman et al., 2019). This has the potential to hinder the achievement of optimal conditions for the baby and mother, such as better regulation of body temperature in the baby and reduction of anxiety and increased milk production in the mother.

The impact of the lack of implementation of early skin-to-skin contact is quite significant. Without direct contact, the newborn is at risk of hypothermia, a decrease in oxygen levels in the blood, as well as difficulties in establishing an emotional bond with the mother. Mothers also do not get the maximum benefit from this contact, such as a reduction in anxiety levels and an increase in hormones that support the breastfeeding process (Gupta et al., 2020). Therefore, research on the effect of early skin-to-skin contact intervention by nurses on the physiological stability of mothers and babies becomes very important to do.

The urgency of this study is also related to the importance of the role of nurses in supporting the health of post-natal mothers and babies. Nurses play a major role in the management of post-natal care, including in carrying out skin-to-skin contact interventions. Although many hospitals have adopted this policy, its implementation is still inconsistent. This study aims to examine in more depth how the quality of interventions performed by nurses can affect the physiological condition of mothers and babies (Purnomo et al., 2020).

Related to the novelty of the research, although there has been a lot of research on the benefits of skin-to-skin contact, little research has examined the role of nurses in the application of

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this technique, especially in Indonesian hospitals. Research by Rojan et al. (2020) showed that skin-to-skin contact can improve the stability of the baby's body temperature and reduce stress levels in the mother, but the study has not explored the specific role of nurses in its implementation. This research is expected to provide a new contribution in filling the void of literature that examines the role of nurses in the implementation of this technique, especially in Indonesia.

Research conducted by Kurniawati et al. (2020) also highlighted the positive impact of skin-to-skin contact techniques on the regulation of infant body temperature and oxygen levels in newborn blood. However, the study also did not focus on the role of nurses in ensuring the technique is applied correctly. Similarly, the research of Sari et al. (2021) who mentioned that although skin-to-skin contact is beneficial, many hospitals are facing challenges in the implementation of this technique due to the limited knowledge and skills of nurses.

Furthermore, in a study by Kusumawati et al. (2021) it was found that good training for nurses regarding skin-to-skin contact techniques would increase the effectiveness of their application. Well-trained nurses can be more consistent in carrying out this technique, which in turn can improve the physiological stability of the baby and mother. This study emphasizes the importance of improving the knowledge and skills of nurses in implementing interventions that benefit mothers and babies.

In the field, however, the application of skin-to-skin contact techniques does not always go smoothly. Several factors such as time constraints, lack of resources, and non-compliance between hospital policies and practices in the field, become challenges for nurses in implementing these interventions consistently. Research by Ningsih et al. (2020) also noted that many nurses face difficulties in applying existing guidelines, especially in medical situations that require special attention to the mother or baby. This suggests the need for further evaluation of how the implementation of skin-to-skin contact techniques can be improved to support the physiological stability of mother and baby.

The author's interest to conduct this research stems from direct observation of the practice of post-natal care in Rsia Mutiara Bunda Padang. Based on preliminary findings, the implementation of skin-to-skin contact is still not consistent across treatment rooms despite existing policies and guidelines that direct it. Some nurses report difficulties in properly applying this technique, especially in certain medical conditions. Therefore, this study aims to examine in more depth the effect of skin-to-skin contact intervention on the physiological stability of mothers and infants, as well as to explore the challenges faced by nurses in its implementation.

Through this study, it is hoped to provide a deeper understanding of the effect of early skin-to-skin contact interventions by nurses on the physiological stability of mothers and babies. This study also aims to identify the challenges faced by nurses in the implementation of this technique and provide recommendations to improve the quality of its application. With the results of this study, it is hoped that hospitals can design better training programs for nurses and improve evidence-based post-natal care policies that can improve maternal and infant health in Indonesia.

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Overall, this study is very relevant to carry out, given the importance of skin-to-skin contact in supporting the physiological stability of post-natal mother and baby. It is hoped that the results of this study can provide a solid foundation for the development of more effective nurse training, as well as improving the quality of post-natal care that can improve the health of mothers and babies in Indonesia as a whole.

METHODS

This study uses a quantitative design with a quasi-experimental approach using one group pretest-posttest design, which aims to evaluate the effect of early skin-to-skin contact intervention on the physiological stability of mothers and infants. Measurements were taken in the same group before and after the intervention without a control group, so that changes in physiological conditions that occur can be observed as an impact of providing skin-to-skin contact for 60 minutes after delivery.

This research was conducted at Rsia Mutiara Bunda Padang, a special Mother and Child Hospital that has facilities and resources that support postpartum care and the implementation of early skin-to-skin contact interventions. The sample consisted of 20 pairs of mothers and babies who were selected based on inclusion criteria, namely Mothers giving birth normally and in stable condition, babies born full-term and healthy, and willingness to be respondents. The exclusion criteria include mothers with complications of childbirth or comorbidities, as well as babies with asphyxia, low birth weight, congenital abnormalities, or who require intensive care.

All respondents were given an early skin-to-skin contact intervention for 60 Minutes by placing the naked baby on the mother's chest immediately after birth. Measurements were taken before and after the intervention, including the mother's heart rate and body temperature, as well as the baby's body temperature, respiratory rate and heart rate. The Data obtained were analyzed using paired t-test to determine differences in physiological conditions before and after the intervention.

RESULTS

In this study, the physiological data of mothers and babies were measured before and after the intervention of skin-to-skin contact for 60 Minutes. The results of the analysis are presented in two parts: first, the univariate results to describe the data obtained on each variable before and after the intervention, and second, the bivariate results to analyze the significant relationships between the variables measured using the paired t-test.

1. Physiological Measurement of Mother and Baby Before and After Intervention in RSIA Mutiara Bunda Padang

Table 1. Physiological Measurement of Mother and Baby Before and After Intervention in RSIA Mutiara Bunda Padang

Variable	Before the Intervention (Mean ± SD)	After the Intervention (Mean ± SD)

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Variable	Before the Intervention (Mean ± SD)	After the Intervention (Mean ± SD)
Maternal Heart Rate Frequency	95 ± 10 bpm	85 ± 9 bpm
Mother's Body Temperature	36,5 ± 0,3°C	36,7 ± 0,2°C
Baby's Body Temperature	36,5 ± 0,4°C	37,2 ± 0,3°C
Baby's Respiratory Rate	50 ± 5 x/ minutes	45 ± 4 x/ minutes
Baby's Heart Rate	145 ± 8 bpm	140 ± 7 bpm

The results show the results of physiological measurements of the mother and baby before and after the intervention. The frequency of the mother's heart rate showed a decrease after the intervention, with an average of 95 bpm to 85 bpm. Although the mother's body temperature increased slightly from 36.5°C to 36.7°C, this change was not very significant. In infants, body temperature rises significantly, from 36.5°C to 37.2°C. This indicates that skin-to-skin contact is effective in helping maintain a newborn's body temperature. The baby's respiratory rate also decreased slightly from 50 x/min to 45 x/min, which indicates a decrease in the level of stress in the baby. The baby's heart rate decreased slightly from 145 bpm to 140 BPM after the intervention, indicating stabilization of the baby's heart condition.

2. Effect of Skin-To-Skin Contact on the Physiology of Mother and Baby in RSIA Mutiara Bunda Padang

Table 2. Effect of Skin-To-Skin Contact on the Physiology of Mother and Baby in RSIA Mutiara Bunda Padang

Variable	P value (Paired t-test)
Maternal Heart Rate Frequency	0,02*
Mother's Body Temperature	0,10
Baby's Body Temperature	0,00*
Baby Breathing Frequency	0,04*
Baby Heart Rate	0,05*

The results show the results of paired t-tests to analyze the physiological differences of mother and baby before and after the intervention. The results of bivariate analysis showed a significant relationship between skin-to-skin contact interventions and several physiological variables. The frequency of the mother's heart rate showed a significant difference (p = 0.02), which suggests that skin-to-skin contact interventions can lower the mother's heart rate and lower her stress level. The baby's body temperature also showed a significant increase (p = 0.00), which indicates that skin-to-skin contact is effective for increasing the baby's body temperature. The baby's respiratory rate also showed significant results (p = 0.04), which showed a decrease in the baby's respiratory stress. The baby's heart rate decreased significantly (p = 0.05), which indicates a positive effect of skin-to-skin contact on the physiological stabilization of the baby. However, the

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mother's body temperature did not show significant changes (p = 0.10), which indicates that although there was a slight increase, this was not significant enough.

DISCUSSION

1. Physiological Measurements of Mother and Baby Before and After the Intervention in RSIA Mutiara Bunda Padang

The results of this study showed that the baby's body temperature increased significantly after the skin-to-skin contact intervention, with the baby's body temperature increasing from 36.5°C to 37.2°C. This increase in body temperature indicates that skin-to-skin contact can help maintain the thermoregulation of newborns, which is crucial for their well-being. The study also showed that the respiratory frequency of infants decreased slightly, from 50 x/min to 45 x/min after the skin-to-skin contact intervention. This decrease in respiratory rate reflects a decrease in the stress level of babies and an increase in their physiological stability. This decrease suggests that skin-to-skin contact may help calm babies and improve their breathing patterns after birth.

The study also showed that the frequency of the mother's heart rate decreased significantly after the intervention, from 95 bpm to 85 BPM. This decrease in maternal heart rate indicates that skin-to-skin contact has an effect on reducing the physiological stress of post-natal mothers. This decrease in heart rate indicates an increased physical and emotional relaxation of the mother after birth. The baby's heart rate also decreased from 145 bpm to 140 BPM after the intervention, although this decrease was slight, but still significant. This decrease in heart rate suggests that skin-to-skin contact can help stabilize babies ' physiological conditions, including their heart rate.

Newborns have limitations in independently regulating body temperature, so they are particularly susceptible to hypothermia which can affect their overall health (Blomqvist et al., 2020). These findings are consistent with the results of a study by Moore et al. (2020), who found that skin-to-skin contact serves as an effective strategy for warming babies and stabilizing their body temperature, reducing the risk of hypothermia in newborns.

The theory of infant thermoregulation described by Bergman et al. (2015) that skin-to-skin contact allows the transfer of heat from the warmer body of the mother to the baby's body, which is essential for maintaining the body temperature of the newborn. This process occurs through the conduction of heat between the mother's skin and the baby, where the mother's body, which has a more stable temperature, helps to warm the baby naturally). This increase in the baby's body temperature after skin-to-skin contact suggests that the physical interaction between mother and baby not only affects the emotional bond, but also strongly supports the physiological condition of the post-natal baby (Bergman et al., 2015).

Research conducted by Fathiah et al. (2021) also provided results in line with these findings. Their research showed that babies who received skin-to-skin contact immediately after birth had a more stable body temperature compared to babies who were not given the intervention. This practice has been shown to reduce the risk of hypothermia in infants, which may contribute to improved long-term health of infants (Fathiah et al., 2021). These results further

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strengthen the argument that skin-to-skin contact plays an important role in maintaining the body temperature of newborns.

This is consistent with the findings of Charpak et al. (2020), who showed that skin-to-skin contact can stimulate the release of the hormone oxytocin, which has a calming effect on the mother, thereby lowering heart rate and blood pressure. Oxytocin, known as the" love hormone, " plays an important role in the theory of maternal and infant emotional bonding. The decrease in maternal heart rate after skin-to-skin contact is associated with the effect of oxytocin in strengthening the emotional bond between mother and baby. During skin-to-skin contact, oxytocin is released, which reduces maternal anxiety and promotes physical relaxation. It also has an impact on the physiological stability of the mother, who is more awake post-delivery (Charpak et al., 2020). The research of Suryani et al. (2021) also found something similar, that skin-to-skin contact can lower the mother's heart rate, reduce anxiety, and contribute to the mother's physiological stability.

Study by Suryani et al. (2021) showed that mothers who had skin-to-skin contact tended to feel calmer, with a significant reduction in heart rate. This contributes to a reduction in stress and an improvement in the well-being of the mother after childbirth. This decrease in maternal heart rate also suggests that skin-to-skin contact can accelerate maternal physical recovery, which is important for maternal health in the long term.

This is in line with the research of Blomqvist et al. (2020), which states that oxytocin released during physical contact between mother and baby can help lower anxiety in infants and slow their respiratory rate. Skin-to-skin contact can decrease the baby's respiratory rate, which is often increased in babies who are stressed after birth. A study by Putra et al. (2022) also found that skin-to-skin contact can help babies to be calmer and have a more regular breathing frequency. Therefore, by maintaining a stable body temperature and reducing stress, skin-to-skin contact not only has an effect on the baby's body temperature, but also on the stability of the newborn's breathing.

This decrease in breathing frequency also suggests that skin-to-skin contact can have a calming effect on babies and improve their overall physiological balance. Thus, this physical interaction not only supports the baby's body temperature but also improves the function of the baby's respiratory system, which is important to ensure that the baby can adapt to the external environment after birth.

This is in line with research by Moore et al. (2020), which showed that skin-to-skin contact can lower the infant heart rate that is usually elevated in babies who experience stress after birth. Skin-to-skin contact has a positive influence on the physiological responses of the baby, including a decrease in heart rate and increased relaxation in the baby after birth. These findings support the importance of applying skin-to-skin contact immediately after delivery to ensure the baby gets optimal physiological benefits.

The theory underlying these findings is the influence of oxytocin on infants. Oxytocin released during physical contact between mother and baby helps calm babies and decreases their

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physiological stress response, which is reflected in a decrease in the baby's heart rate (Moore et al., 2020). This decrease in the baby's heart rate suggests that skin-to-skin contact has an effect not only on the stability of the baby's body temperature and breathing, but also on their cardiovascular stability, which is very important for the baby's well-being after delivery.

Based on the results of this study, it can be concluded that skin-to-skin contact plays an important role in increasing the physiological stability of the mother and baby. An increase in the baby's body temperature, a decrease in the mother's heart rate, and a decrease in the baby's respiratory rate all indicate that this intervention is very effective in reducing stress and improving the well-being of both parties. The decrease in infant heart rate also suggests that skin-to-skin contact has a positive effect on the physiological stability of infants, including in terms of their cardiovascular and respiratory stability.

These findings provide a solid foundation for hospital post-natal care policies that support the implementation of skin-to-skin contact immediately after birth. The implementation of these interventions can help improve the quality of care provided to mothers and babies. Therefore, it is important for medical personnel, especially nurses, to better prioritize and optimize the implementation of skin-to-skin contact at each stage of post-natal care.

2. Effect of Skin-To-Skin Contact on the Physiology of Mother and Baby in RSIA Mutiara Bunda Padang

The results of this study indicate that skin-to-skin contact has a significant impact on the physiological stability of the mother and baby. The baby's body temperature increased from 36.5°C to 37.2°C after the intervention showed that skin-to-skin contact was effective in maintaining the thermoregulation of the newborn. This is consistent with the findings of Moore et al. (2020), who explain that skin-to-skin contact immediately after birth serves to warm the baby and reduce the risk of hypothermia. With a warmer removal of heat from the mother's body, the baby's body temperature can be maintained at an optimal level. Bergman et al. (2015) confirmed that this heat transfer mechanism is one of the best ways to maintain the body temperature of infants, who are particularly susceptible to temperature changes after birth. Therefore, skin-to-skin contact plays an important role in maintaining a stable baby's body temperature, especially in newborns who are not yet able to regulate their own body temperature.

In addition, the results of this study also showed a decrease in the mother's heart rate from 95 bpm to 85 bpm after skin-to-skin contact. This decrease in heart rate describes the calming influence exerted by the physical interaction between mother and baby. This is related to the research of Charpak et al. (2020), which states that skin-to-skin contact stimulates the release of the hormone oxytocin. Oxytocin, known as the hormone of love and bonding, not only plays a role in strengthening the emotional connection between mother and baby, but also has a calming effect on the mother, which is reflected in a decrease in the mother's heart rate and blood pressure. This decrease in maternal heart rate is also in line with the findings of Suryani et al. (2021), which

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showed that skin-to-skin contact can promote maternal physical and emotional relaxation after delivery, as well as improve overall maternal well-being.

In addition, this study shows that the respiratory frequency of infants also decreased slightly, from 50 x/min to 45 x/min after the intervention. This decrease in breathing frequency indicates that skin-to-skin contact can help calm babies and reduce their physiological stress levels after birth. This decrease in breathing is related to the influence of oxytocin released during skin-to-skin contact, which also plays a role in lowering babies ' anxiety and improving their breathing patterns. Research Blomqvist et al. (2020) support these findings by showing that oxytocin released during skin-to-skin contact can reduce anxiety in infants and decrease their respiratory rate. This is also in line with Putra et al. (2022), who found that babies who were given skin-to-skin contact had a more regular and stable respiratory rate. By maintaining a stable body temperature and reducing stress, skin-to-skin contact is not only beneficial for the thermoregulation of babies, but also supports the stability of their respiratory system.

Furthermore, the baby's heart rate also showed a slight but significant decrease, from 145 bpm to 140 bpm after the intervention. This decrease in heart rate reflects the positive influence of skin-to-skin contact in stabilizing the physiological condition of the baby. This suggests that skin-to-skin contact plays a role in reducing the baby's stress that occurs after birth, which is reflected in a decrease in heart rate. This decrease in heart rate is also in line with the research of Moore et al. (2020), who found that skin-to-skin contact can lower a baby's heart rate in response to stress reduction. The hormone oxytocin released during this interaction affects the parasympathetic nervous system in infants, which plays a role in lowering the heart rate and stimulating relaxation of the baby's body.

Some recent theories also explain the biological mechanisms behind the benefits of skin-to-skin contact. One of them is the theory of the influence of oxytocin described by Charpak et al. (2020). Oxytocin plays an important role in reducing anxiety in both mother and baby, as well as increasing the emotional bond between the two. In addition, the theory of conductive heat transfer described by Bergman et al. (2015) also support the finding that skin-to-skin contact can help maintain a baby's body temperature. By transferring heat from the mother's warmer body to the baby's cooler body, this physical interaction maintains the baby's more stable body temperature. This theory explains that skin-to-skin contact is one of the most effective ways to maintain a newborn's thermoregulation.

In addition, the theory of physiological regulation also explains how skin-to-skin contact helps stabilize the baby's heart rate and respiratory rate. A decrease in the baby's heart rate and breathing after skin-to-skin contact suggests that this contact activates the parasympathetic nervous system in the baby, which contributes to a decrease in anxiety and an increase in physiological stability. This theory is reinforced by the research of Blomqvist et al. (2020), which states that oxytocin released during skin-to-skin contact affects infants ' parasympathetic nervous systems, lowers heart rate, and helps reduce their anxiety.

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Looking from the perspective of these theories, it can be concluded that skin-to-skin contact provides many physiological benefits for both mother and baby, which go far beyond simply reducing stress. In addition to providing physical warmth to the baby, this contact also has a profound psychological impact on the mother, by reducing anxiety and improving her emotional well-being. Therefore, it is important to carry out skin-to-skin contact as part of standard post-natal care, in order to maximize the health of the mother and baby.

Research by Fathiah et al. (2021) in Indonesia also supported the findings of this study. Their research showed that babies who were given skin-to-skin contact had a more stable body temperature compared to babies who did not get this intervention. In addition, the results of this study suggest that skin-to-skin contact may reduce the risk of hypothermia in newborns, which is a common problem that can affect the baby's long-term health. This finding is important because it suggests that skin-to-skin contact can prevent serious health problems that can arise from a baby's poorly maintained body temperature.

In addition, the results of this study suggest that a reduction in the mother's heart rate can contribute to a faster recovery after the delivery process. This decrease in heart rate indicates a positive effect of skin-to-skin contact in helping mothers cope with post-natal stress. This is in accordance with the oxytocin theory which explains that this hormone stimulates the relaxation of the mother's body and increases the bond between mother and baby, which helps reduce maternal stress and anxiety (Charpak et al., 2020).

Given the benefits found in this study, it is important to provide further training to medical personnel, especially nurses, on the importance of skin-to-skin contact interventions in maternal and infant care. This training is expected to improve nurses ' understanding of the correct technique in carrying out skin-to-skin contact, as well as provide empirical evidence to support the implementation of this procedure in hospitals. Thus, skin-to-skin contact can be integrated as part of standard care, which will improve the overall quality of health of the mother and baby.

Overall, the results of this study show that skin-to-skin contact is not only beneficial for maintaining the baby's body temperature, but also has a significant impact on reducing the physiological stress of mother and baby. This physical interaction stimulates the release of oxytocin, which helps calm both parties and improve their well-being after childbirth. Therefore, skin-to-skin contact should be routinely applied in post-natal care to improve the health of the mother and baby.

CONCLUSIONS

Based on the results of a univariate analysis, this study showed a significant improvement in the physiological stability of infants after skin-to-skin contact interventions. The baby's body temperature increased from 36.5°C to 37.2°C, which indicates that this intervention is effective in maintaining the thermoregulation of the newborn. The baby's respiratory rate also decreased, from 50 x/min to 45 x / min, which suggests that skin-to-skin contact plays a role in reducing the baby's physiological stress level. In addition, the baby's heart rate decreased slightly, from 145 bpm to 140

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bpm, which reflects the positive influence of skin-to-skin contact in stabilizing the baby's physiological condition.

On the maternal side, the univariate results showed a significant decrease in heart rate, from 95 bpm to 85 bpm, which indicates that skin-to-skin contact can help reduce the physiological stress of post-natal mothers. This decrease in heart rate describes a calming effect that occurs in the mother, which goes hand in hand with an increase in the emotional bond between mother and baby facilitated by the release of the hormone oxytocin. This supports the findings of previous studies showing that skin-to-skin contact not only contributes to the physical health of the baby, but also plays a role in improving the emotional well-being of the mother.

The results of the bivariate analysis also showed a significant relationship between skin-to-skin contact intervention and increased physiological stability of mother and Baby ($p<0.05$). A decrease in the mother's heart rate, an increase in the baby's body temperature, as well as a decrease in the baby's respiratory rate indicate that this intervention has a positive physiological effect on both sides. Therefore, the application of skin-to-skin contact as part of post-natal care can be considered an effective strategy for improving the overall health of the mother and baby.

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