Journal of Integrated Nursing and Public Health
Volume 2, Number 1, 2026
E-ISSN : 3110-5432
Open Access: https://pkhy.jinph.org

IMPLEMENTATION OF MASS FIELD MASSAGE AS AN EFFORT TO PREVENT HYPERBILIRUBIN IN NEWBORNS

Karina Ramadhani [1], Erma Nur Fauziandari[2], Murti Krismiyati[3*]

[1 2 3] Potileknik Kesehatan Karya Husada Yogyakarta

Correspondence: murtikris11@email.com

Article Info

Article history:
Received February 10th, 2026
Revised February 12th, 2026
Accepted February 16th, 2026

Keyword:
Neonatal jaundice; Hyperbilirubinemia; Field massage; Newborn; Bilirubin levels.

ABSTRACT

Background: Hyperbilirubin or jaundice in newborns is one of the health problems that often occurs and can cause complications if not treated properly. One of the non-pharmacological efforts that can be done to prevent increased bilirubin levels is field massage.
Purpose: This study is to determine the benefits of giving Field Massage to newborns in preventing hyperbilirubin.
Methods: In this study, the method used was a case study on newborns who received continuity of care midwifery care at PMB Widawati Rahayu Sleman Yogyakarta. Field massage was performed regularly on infants aged 6 hours and 12 days with a soft and structured touch technique.
Results: Observation showed that infants who received Field Massage had normal skin color, showed no signs of jaundice, and physical examination and elimination were within normal limits. Field massage is thought to increase blood circulation, improve liver function, and accelerate bilirubin excretion through increased frequency of defecation and urination.
Conclusion: Field massage is a simple, safe, and effective intervention as a promotive and preventive effort to prevent hyperbilirubin in newborns

INTRODUCTION

The Infant Mortality Rate (AKB) is still a big challenge in the world of Indonesian health. Based on 2023 data, AKB in Indonesia is influenced by several main factors such as *hypothermia*, *asphyxia*, low birth weight (BBLR), and infection (Permata Sari et al., 2023). Efforts to reduce AKB do not only focus on medical interventions, but also on a comprehensive promotive and preventive approach, one of which is through continuity *of care* midwifery care and the application of complementary care such as *Field Massage* (Rhomadona & Leberina, 2021).

One of the government's efforts to prevent and reduce the Infant Mortality Rate (AKB) related to *field massage is to encourage the implementation of comprehensive* continuity of care *midwifery care* in health facilities, including the independent practice of midwives. In this practice, the government through the Ministry of Health provides training and socialization to health workers on baby massage techniques such as *field massage*, which has been proven to increase infant weight, improve elimination (defecation and BAK), prevent *hyperbilirubin*, and strengthen the immune system of newborns (Eka Sari Santoso et al., 2022). By integrating simple and safe interventions such as *field massage* into routine services, the government hopes that newborns can grow healthy, avoid complications such as *jaundice*

and infections, and ultimately contribute to reducing AKB in Indonesia. *Field Massage* in newborns is a gentle massage technique that is performed to stimulate the nervous system and improve the baby's blood circulation. Based on research (Setiarini, 2022), *Field Massage* can improve digestion, reduce colic and flatulence, and help reduce *bilirubin levels* in jaundice babies.

The novelty in this case study is that it offers innovation in the form of standardized implementation of field massage as an integrated early preventive intervention in early neonatal care, with an approach of empowering mothers and strengthening the physiological mechanisms of bilirubin elimination.

RESEARCH METHODS

This study uses a qualitative method in the form of a case study, which focuses on one selected phenomenon, namely the implementation of *continuity of care* (COC) midwifery care on one subject. *Countinuity of Care* in midwifery is a series of continuous and comprehensive service activities ranging from pregnancy, childbirth, postpartum birth, newborn (BBL) and Family Planning (KB) that connect women's health needs and the personal circumstances of each individual (Setyowati, 2024).

This research was conducted at PMB Widawati Rahayu on Mrs. L who was given continuous care starting from the third trimester of pregnancy to the postpartum period.

Complementary care is provided according to the baby's needs during mentoring. In this study, the newborn was 6 hours old, the baby was immediately given *a field massage* which aims to prevent *hyperbilirubin* and increase the baby's weight. This is intended so that the baby does not turn yellow during assistance and the baby's weight can increase by 300-800 grams within 1 week to a month. Before carrying out a field massage, first ask for permission from the parents, in this case the permission is given by the baby's mother.

RESULTS AND DISCUSSION

Results before and after *Field Massage* for 15 minutes on May 2, 2025.

Table 1 Complementary given

More complementary	Result
Field Massage	Babies appear to be unconscious from birth to 12 days.

Based on table 1, it can be concluded that after giving *Field Massage* to Newborns, the results were obtained that the Baby did not experience *icteric* from birth to the age of 12 days.

The results of *Field Massage* can also be seen from the increase in the baby's weight.

Table 2 Weight

Time	Weight
May 2, 2025	3100 Grams

May 14, 2025	3450 large

Based on table 2 about the baby's weight, it can be concluded that the baby's weight for 12 days ha *Field Massage* also helps to lower *bilirubin levels* in jaundice babies.

Based on table 1 carried out on Newborns aged 6 hours, *Field Massage* is given for 15 minutes which aims to help improve blood circulation and tissue oxygenation, improve gastrointestinal function, and stimulate the vagus nerve which plays a role in the absorption of nutrients and metabolism of the baby's body. Thus, *field massage* can accelerate *bilirubin production* through increasing the frequency of bowel movements and bowel movements, thus effectively preventing the occurrence of *hyperbilirubin* (*jaundice*) which is one of the common problems in newborns. In addition, *field massage* also helps stabilize body temperature, increase weight, and improve sleep quality (Rizki Amelia et al., 2025).

After being given *Field Massage,* the baby looks unconscious from birth to 12 days of age, this is in accordance with the theory (Setiarini, 2022) which says that *Field Massage* can make babies calmer, more comfortable, and relaxed so that they sleep more restfully and regularly. *Field Massage* also helps to lower *bilirubin levels* in jaundice babies.

Based on table 2 about baby weight, it was found that the baby's weight after birth up to 12 days postpartum increased by 350 grams. This is related to giving *Field Massage* to babies which is useful for improving digestion, reducing colic and flatulence so that babies can breastfeed properly. In addition, *Field Massage* can increase growth and weight, as well as support the development of the brain and nervous system (Hanik & Wahyu Nindi Sayekti, 2024).

Hyperbilirubin or jaundice in newborns occurs as a result of excessive *accumulation of bilirubin* in the blood, which can lead to permanent brain damage if not treated properly. *Field massage* is one of the solutions to prevent *hyperbilirubin* in babies because this massage technique focuses on stimulating the abdominal and chest area with a soft and structured touch (Yuniar et al., 2024).

Physiologically, this massage stimulates the parasympathetic nervous system, specifically the vagus nerve, which improves intestinal motility and liver function. Increased intestinal motility accelerates the production *of bilirubin* through feces and urine, so that *bilirubin* levels in the blood decrease faster (Yuniar et al., 2024).

In addition, this massage also helps improve blood circulation and metabolism of the baby, improve the adaptation process of newborns, as well as reduce stress and improve sleep quality which contributes to optimal recovery (Yuniar et al., 2024).

There are several journals discussing the effectiveness of field *massage* in lowering *bilirubin* levels in neonates with *hyperbilirubinemia*, but with different approaches and focuses. The journal (Karuniawati, 2023) highlighted the relationship between the level of knowledge and perception of pregnant women about the benefits *of field massage* as an effort to prevent *hyperbilirubin*, finding that good knowledge correlates with positive perceptions of baby massage. Meanwhile, (Abdelhamid Zaki,

2019) used a quasi-experimental design on neonates undergoing phototherapy, and proved that additional *field massage* significantly lowered *bilirubin levels* and increased the frequency of bowel movements, thereby accelerating recovery and shortening the length of hospitalization. Meanwhile, the journal (Agustina & Khairunissa, 2023) is a literature review that summarizes various studies and concludes that infant massage, both in aterm and preterm infants, is effective in lowering *bilirubin levels and increasing* bilirubin *excretion* through increasing the frequency of defecation, especially when combined with phototherapy. Overall, these three journals agree that infant massage is an effective and

In a case study, only one subject is observed, and there are no other comparison subjects because in a case study the researcher aims to focus on the development of one subject.

CONCLUSION

Based on the results of the research taken from the data, *Field Massage* was able to play a role in preventing *Hyperbilirubin* and increasing baby weight in baby Mrs. L at PMB Widawati Rahayu. This is evidenced by the absence of *icteric* in babies from birth to 12 days of age and an increase in infant weight by 11.3%.

It is hoped that the next case study can provide complementary midwifery care according to the needs of the mother and baby during the mentoring period.

REFERENCES

Abdelhamid Zaki, N. (2019). Effect of Field Massage on Bilirubin Level and Stool Passage Frequency among Neonates with Hyperbilirubinemia under Phototherapy. *Egyptian Journal of Health Care*, *10*(2), 45–55. https://doi.org/10.21608/ejhc.2019.33509

Agustina, A. N., & Khairunissa, C. G. (2023). Hidden Effect of Baby Massage on Hyperbilirubinemia. *Indonesian Nursing Media*, *6*(4), 349. https://doi.org/10.26714/mki.6.4.2023.349-357

Eka Sari Santoso, S., Karuniawati, B., & Nur Fauziandari, E. (2022). The Effect of Field Massage on Bilirubin Levels in Neonates with Hyperbilirubinemia. *KnE Life Sciences*, *2022*, 335–344. https://doi.org/10.18502/kls.v7i2.10327

Hanik, H. K. N., & Wahyu Nindi Sayekti. (2024). Effect of Baby Field Massage Therapy on Serum Bilirubin Levels in Infants With Hyperbilirubinemia : A Systematic Review. *Scientific Journal of Science*, *6*(1), 8–12. https://doi.org/10.53599/jip.v6i1.213

Karuniawati, B. (2023). Analysis of Knowledge and Perception of Pregnant Women About FieldMassage as an Effort to Prevent Hyperbilirubin in New Babies. *Journal of Clinical Public Health*, *14*(01), 107–113.

Permata Sari, I., Afny Sucirahayu, C., Ainun Hafilda, S., Nabila Sari, S., Safithri, V., Febriana, J., Hasyim, H., Master of Public Health Sciences, P., Public Health, F., & Sriwijaya, U. (2023). Factors Causing Maternal and Infant Mortality Rates and Case Reduction Strategies (Case Studies in Developing Countries): Systematic Review. *PREPOTIF Journal of Public Health*, *7*(3), 2023.

Rhomadona, S. W., & Leberina, E. (2021). Continuity of Care obstetric care for Mrs. "A" aged 24 years gip0000 from pregnancy to postpartum at PMB Any Iswahyuni, Surabaya. *Journal of Midwifery*, *10*(1), 10–20. https://doi.org/10.47560/keb.v10i1.273

Rizki Amelia, Motik, R. P., Hendra, H., Supriadi, S., Pramono, J. S., Jasmawati, J., Syukur, N. A., Raihana, S., Ratna Wati, Putri, R. A., & Cholsakhon, P. (2025). Field Massage as a Complementary Therapy to Phototherapy in Neonates with Hyperbilirubinemia. *Ahmar Metastasis Health Journal*, *4*(4), 200–207. https://doi.org/10.53770/amhj.v4i4.429

Setiarini, W. (2022). Effect of Baby Field Massage Therapy on Serum Bilirubin Levels in Infants with Hyperbilirubinemia in 2020. *Journal of Health*, *9*(2), 119–132. https://doi.org/10.35913/jk.v9i2.238

Setyowati, H. (2024). Continuity of Care (COC) Midwifery Care for Mrs. A Age 26 Years GIP0A0 at the Suruh Health Center. *National Seminar and Seminar on Education...*, *3*(2), 1997–2006. https://callforpaper.unw.ac.id/inde x.php/semnasdancfpbidanunw/article/view/682

Yuniar, D., Canser, B., Asyiyah, S., Sagittarius, B. D., Ekawati, R., Hidayati, S., Asmulyati, Y., & Sari, K. (2024). Proceedings of the National Seminar and Call for Paper on Midwifery Literature Review: The Effect of Baby Field Massage on Reducing Bilirubin Levels. *University of Ngudi Waluyo*, *3*(1), 2024.