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IMPLEMENTATION OF FIELD MASSAGE TO PREVENT NEONATAL JAUNDICE

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ABSTRACT

In 2022 Indonesia's infant mortality rate is still high, one of the causes is neonatal jaundice. Neonatal jaundice is a jaundice due to hyperbilirubinemia. Hyperbilirubinemia can be prevented by breastfeeding on demand and field massage. Field massage is the provision of stimulation in the face, chest and abdominal area which functions to increase the activity of the vagus nerve. This study aims to determine the results of the application of field massage to the prevention of neonatal jaundice. This type of research is qualitative with a case study research method using an observational approach. The data used is primary data. This research was conducted on baby Kenzo. Field massage is carried out on Baby Kenzo from birth to 6 days old, in a day it is done 2 times in the morning and evening for 15-20 minutes. The evaluation of field massage was carried out on the 6th day. after field massage there was an increase in the frequency of breastfeeding, elimination of bowel movements and urination, the baby did not experience hyperbilirubinemia and there was a weight gain of 200 grams. Field massage can improve the work of the digestive system so that it is effective in preventing neonatal jaundice.

Keywords: baby; field massage; neonatal jaundice

INTRODUCTION

According to the Central Statistics Agency (BPS), the infant mortality rate in 2022 in Indonesia is 16.9 per 1,000 live births. This figure decreased by 1.74% compared to the previous year which was 17.2 per 1,000 live births, but this decrease is still far from the 2030 Sustainable Development Goals (SDGs) target, which is the infant mortality rate 12/1000 live births. The causes of infant death include Low Birth Weight (BBLR), Asphyxia, congenital abnormalities, neonatal jaundice and others (Mustajab, 2023). Neonatal jaundice is a jaundice caused by increased levels of bilirubin in the blood or hyperbilirubinemia (Armatheina et al., 2023). According to Agustina & Khairunissa (2023) hyperbilirubinemia, which is a bilirubin level of more than 5 mg/dL characterized by yellowish discoloration of the sclera, conjunctiva and skin. Hyperbilirubinemia is caused by several factors including: intestinal and liver functions have not worked perfectly so that a lot of bilirubin is not conjugated and not wasted from the body, besides that hyperbilirubinemia can occur due to lack of breast milk in the first 2-3 days after birth, an increase in hemolytic diseases and others (Kamisako et al., 2019).

Hyperbilirubinemia that is not treated properly can result in short-term complications such as seizures and long-term complications such as neurological defects such as speech impairment, mental retardation and hearing loss (Puspitasari, 2022). Complications due to hyperbilirubinemia can be prevented by breastfeeding. on demand/as a baby, dry the baby in the morning and provide stimulation massage (Novianti, 2017). Based on this, midwifery care Continuity Of Care which is carried out continuously from pregnant women, maternity, babies, postpartum to Family Planning needs to be implemented as an effort to reduce Infant Mortality Rate (Ramadhani et al., 2024). Continuous care to prevent neonatal jaundice can use several complementary techniques. One of the methods that can be used is Field massage. Field Massage is a massage that focuses on

providing stimulation in the face, chest and abdomen area (Karuniawati, 2023). Based on research Yuniar et al (2024) field massage as therapy adjuvant can effectively lower serum bilirubin levels, this is because field massage it can improve the work of the digestive organs and the swallowing process so that the function of the digestive organs can run better, toxins in the body are easily broken down and food absorption becomes easier. Next field massage can increase the activity of the vagus nerve which causes the baby to get hungry quickly and will breastfeed more often to the mother so that the baby gets enough breast milk, experiences weight gain and prevents neonatal jaundice (Novianti et al., 2017). The theory is reinforced by research revealed Setiarini (2022) and Kristian & Purnamiasih (2023) which says that field massage which is given regularly 2 times a day in the morning and evening for 15-20 minutes is effective in improving the work of the digestive organs and the swallowing process so that the function of the digestive organs can run better, toxins in the body are easily broken down and food absorption becomes easier, so that it can prevent neonatal jaundice.

METHOD

This type of research is qualitative with a case study research method using an observational approach. The data used is primary data. This research was conducted on Kenzo babies at Tutik Purwani Independent Midwife Practice who were given care from 6 hours to 6 days old. Complementary care is provided according to the needs of the baby during mentoring. In this study, 6-hour-old newborns were immediately given a field massage to prevent high levels of bilirubin in the blood and improve the work of the digestive organs and the swallowing process so that they could prevent neonatal jaundice. Field massage is first carried out by researchers at the age of 6 hours of babies, then researchers also educate and teach mothers so that mothers can do field massage and apply it at home. The researcher made a time contract with the mother to do a field massage at home every day.Field massage is carried out for 6 consecutive days. On the 2nd to 5th day, it is done 2 times a day in the morning and evening by the mother with a duration of 15-20 minutes. Then on the 6th day, a field massage was carried out as well as an evaluation by researchers at Independent Midwife Practice Tutik Purwani with the results of the effect of field massage with the prevention of neonatal jaundice as seen from normal physical examination, frequency of breastfeeding, weight gain and frequency of bowel movements and bowel movements.

RESULT AND DISCUSSION

The results before the field massage was carried out at the age of 6 hours for the baby on March 27, 2024 and after the age of the baby at 6 days on April 2, 2024 as seen from the complaints.

Table 1.
Evaluation of complaints of infant visits before and after being given *a field massage*

Before	After
The mother said the last baby was breastfed at 04.00 WIB	The mother said the frequency of breastfeeding the baby was more frequent once every 1-2 hours, the mother said the baby's suction was stronger

Based on table 1, it can be concluded that after giving *a field massage, the baby's* suction results are stronger and the frequency of breastfeeding is more frequent once every 1-2 hours.

The results of *the field massage* are seen from the color of the eyes and skin.

Table 2.
Evaluation of the baby's physical examination

Visiting times	Eye	Skin
6 hours	White sclera, pink conjunctiva	Reddish in color, there is no yellowishness on the face, neck, chest to legs
6 days	White sclera, pink conjunctiva	Reddish in color, there is no yellowishness on the face, neck, chest to legs

Based on table 2, it can be concluded that the *field massage* that has been given starting from the baby's age of 6 hours and the results are obtained that there is no yellow color change in the eyes, face, neck, chest, abdomen to feet on the 6th day as one of the indicators that the baby does not experience neonatal jaundice.

The results of *field massage* are seen from the elimination of baby bowel movements and urination.

Table 3.
Elimination of baby bowel movements and urination

Visiting Time	CHAPTER	CONTAINER
6 hours	1 time, blackish-green (meconium)	No urination
6 days	5 times, yellow	10 times, clear yellow

Based on table 3, it can be concluded that after being given *a field massage, the* result is an increase in the frequency of bowel movements and urination in babies.

The results of *field massage* seen from weight gain.

Table 4.
The benefits of *field massage* seen from weight gain

Visiting times	Weight
6 hours	2700 grams
6 days	2900 grams

Based on table 4, it can be concluded that *the field massage* has been given 2 times every day starting from the age of 6 hours and it is found results that there is an increase in the baby's weight on the 6th day as one of the supporting aspects of the baby's prevented neonatal jaundice.

Based on table 1, the results of field *massage* for 6 days aimed at improving the work of the digestive organs. This is in accordance with the needs of babies where newborns up to 14 days old are prone to experiencing neonatal jaundice, so it can be prevented by providing *a field massage.* After it was given *field massage* babies suckle more often and the suction is strong. This is in accordance with the theory expressed by Imron (2015), Wahyuni (2024) and Nisa & Sayekti (2024) that *field massage* can increase vagal stimulation which will stimulate motility of the digestive system. Good digestive system motility will stimulate gastric emptying faster so that the baby will be stimulated to breastfeed more often, suck strongly and get a lot of milk. A large intake of breast milk can also bind more bilirubin levels to be excreted. It is also supported by research Nursanti (2014), Nurmala et al (2022) and Agustina & Khairunissa (2023) which reveals that neonatal jaundice can be prevented with frequent breastfeeding management so that the baby gets enough breast milk. With adequate breast milk, it ensures the adequacy of calories and fluids which can reduce the risk of neonatal jaundice.
Based on table 2, the results of the evaluation were obtained after being carried out *field massage* on the physical examination of the eyes: the sclera is white, the conjunctiva is pink, the skin is

reddish, there is no yellowishness on the face, neck, chest to legs, it can be concluded that the examination results are normal. This is in line with research Afrizal (2024) and Novianti et al (2017) that *field massage* Effective in preventing neoatal jaundice, which is characterized by the results of a normal physical examination, white sclera eyes, pink conjunctiva, reddish skin examination, no yellowness on the face, neck, chest to extremities. Normal physical examination results are due to the effectiveness of the *field massage*. According to Karuniawati (2023), F. Wahyuni & Rahmayanti (2024) and Kristian & Purnamiasih (2023) *field massage* which is given 2 times a day for 15-20 minutes is effective in preventing neonatal jaundice because the provision of stimulation to the face, chest and stomach is able to activate the vagus nerve for increased metabolism so that the function of the digestive organs can run better, toxins in the body are easily decomposed.

Based on table 3, the results of the evaluation were obtained after *field massage* there is an increase in the frequency of elimination of bowel movements and bowel movements. The increased frequency of bowel movements and bowel movements can affect the increased amount of bilirubin excreted in the form of feces and urine. This is in line with the theory expressed by Purnamasih & Pamelang (2023), Ika Yuni Susanti & Citra Adityarini Safitri (2024) and Supliyani (2023) that *field massage* affect the motility of the gastrointestinal tract, improve blood circulation and lymph flow as well as enterohepatic circulation. The motility of the gastrointestinal tract will increase the frequency of elimination from the digestive tract and the elimination of feces and urine, this leads to an increase in the amount of feces and urine. An increase in the amount of feces and urine is a medium for an increase in the amount of bilirubin excreted. Based on table 4, the results were obtained that babies are prevented from neonatal jaundice, which is evidenced by the baby's weight gain. The baby's weight at birth was 2,700 grams, when a visit was made at the age of 6 days, a weight gain of 200 grams was obtained, which was 2,900 grams. In accordance with research Apriyani et al (2021), Krisnanto et al (2019) and Katili et al (2018) states that *Field massage* is effective in improving the baby's ability to suckle and increase the baby's weight. By being given a field massage, It can lead to an increase in gastrin and insulin absorption enzymes and affect the activity of the vagus nerve. Vagus nerve activity causes food absorption to be better, babies get hungry quickly and will breastfeed more often so that the volume of breast milk obtained increases and weight gain occurs.

This study shows that there is an effect of giving *field massage* against the prevention of neonatal jaundice, *field massage* can increase vagal stimulation which will stimulate the work of the digestive tract so that the baby is hungry quickly, breastfeeds frequently, the function of the digestive organs can run better, there is an increase in the frequency of elimination so that toxins in the body are easily broken down and excreted through feces and urine (Imron, 2015).

CONCLUSION

Based on the results of the study taken from the data, field massage is effective in preventing neonatal jaundice in baby Kenzo at Independent Midwife practice Tutik Purwani . This is evidenced by the increase in the frequency of breastfeeding, the increase in the frequency of elimination of bowel movements and feces, the absence of color changes in the sclera and skin of the body and the weight gain of 200 grams.

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