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The Effectiveness of "ILU" Massage in Infants As a Complementary Therapy Reduce Constipation in The Public Health Center

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Abstrak

Giving MP-ASI is one of the supporting factors for growth and development, but nutritional intake is one of the factors that affect constipation. One alternative to the use of non-pharmacological therapy, which is administration to reduce constipation, is the "I L U" massage. This research is a descriptive type of research, 5 babies who experience constipation were studied for 2 weeks using the bristol stool chart and Rome IV criteria instruments before and after giving the "I L U" massage. Results and Discussion babies who experience constipation are given "I L U" massage for 2 weeks with massage every 1 week 3 times which is observed based on the bristol stool chart and rome IV. Before the massage, the Bristol stool chart was 1-2 while Rome IV was 2-3 which indicates constipation. After 1 week after the massage, there was an increase in the Bristol stool chart and a decrease in Rome IV, and even 2 weeks after the "I L U" massage, the Bristol stool chart was 2,3,4 and Rome IV 0, indicating reduced constipation. There is an effect of giving "I L U" massage for 2 weeks on a decrease in the type of Bristol stool chart and a decrease in the value of Rome IV.

1. Introduction

Providing proper nutrition during the first 1000 days of life at the beginning of a pregnant woman, breastfeeding until her child is two years old can have an impact on the growth and development of her child in the future, (Winarsih, 2018). Complementary Food for Breast Milk (MP-ASI) is a term used for food given to toddlers which is expected to meet the nutritional needs of toddlers. However, in reality the nutritional content of MP-ASI given to toddlers is still less than the

established Adequacy Rate (Winarsih, 2018). Diet is one of the factors that influence bowel movements. In infants, the frequency varies with an average of 1-2 times per day. Children aged more than 6 months experience defecation > 1 time per day with soft consistency because they have received additional food.

There are several ways to deal with constipation, both pharmacological and non-pharmacological. The use of pharmacological ways to treat constipation is by administering laxatives. In media dissemination of information on the use of laxatives can be used for infants, but the results of the study stated that the use of laxatives should be given to children over the age of 6 years and not recommended for long-term use (Adawiyah et al., 2017). Departing from some of the literature above, that in dealing with constipation in children, non-pharmacological therapy is also widely used, both the use of herbs and massage. The results of the study stated that the use of herbal jelly made from aloe vera in elementary school students was proven to be able to overcome constipation. (Munisih et al., n.d.)

Infant massage therapy has been shown to have an effect on babies who experience constipation. According to Underdown in from Warwick Coventry stated that massage in infants and toddlers can improve their physical health and mental resilience (Xu et al., 2014). Baby massage is an alternative way for parents to provide comfort and pamper their babies. Baby massage has many techniques with the aim of making the baby's body more relaxed. Including massage with the I Love You technique (Rochsitasari et al., 2011)

The results of the study stated that effleurage massage on the abdomen was proven to reduce the incidence of constipation in chemotherapy patients, even other literature stated that foot massage could be used to treat constipation. (Anfhal of the Harapan Nursing Academy, n.d.). The I Love You massage technique, which is done in a way that is truly in the stomach, is effectively able to relieve various constipation and overcome many other health problems. When massaging using the I Love You massage technique, it follows the location of the intestines in the stomach which can facilitate defecation (Suarsyaf et al., n.d.-a). I Love You Massage is a type of complementary therapy that is able to prevent and reduce disturbances in the gastrointestinal system in addition to not having serious side effects and is proven to be able to treat constipation naturally and does not use drugs in any form. (Sari et al., 2020)

Baby massage as a touch therapy has many positive benefits that can support babies and their development and can be a complementary therapy for babies with constipation. Baby massage has the benefit of launching the baby's digestive system and helping the baby to relax so that the baby feels comfortable and not fussy (Lestari & Nurwindasari, 2020).

2. Methods

This research is a mini-research with a descriptive research type. The baby to be observed uses the Rome IV criteria and the Bristol stool chart for 2 weeks with massage 3 times a week. The sample in this study were 5 infants aged 6-12 months. The flow of the research was after obtaining the consent of the respondents and carrying out the assessment, followed by filling in the observation sheet of the Rome IV criteria and the Bristol stool chart to assess whether or not it was included in the constipation category, then doing an "ILU" massage. Then the next day until the 14th

day, the "ILU" massage was carried out and then the Rome IV and Bristol stool chart criteria were observed.

Massage "I L U" is an extension of massage I Love YoU is massage performed on the baby's abdomen, namely the massage movement forms the letters "I L U" in the abdominal area to adjust to the intestinal area. The Rome IV criteria consist of 3 statements, for the Rome IV criteria a diagnosis of constipation is made if 2 or 3 of the Rome IV criteria are met. As for the Bristol Stool Chart, which assesses the type of stool, that is, there are 7 types of stool. Types 1 and 2 are indications of constipation, Types 3 and 4 are ideal stools, types 5,6,7 are indications of diarrhea

3. Findings and Discussions

3.1 Findings

Types of food in the form of instant food or not asked at the time before the massage. Likewise with the need for the amount of fluid according to age.

Table 1. Diet and fluids

Diet and fluids	Respondent				
	I	II	III	IV	IN
Type of food					
Instant	√	√			
Not Instant			√	√	√
Liquid Amount					
< 800 ml/day	√		√		
>800 ml/day		√		√	√

Based on IDAI recommendations, the fluid requirement for infants aged 7 months-1 year is 800 ml/day. In giving MPASI, it is not only the need for calories, frequency and portions that are considered, but the texture of MPASI needs to be considered. IDAI recommends giving MP ASI for ages 6-9 months with puree (strained) and mashed (mashed) textures while for ages 9-12 months the texture is finely chopped, coarsely chopped and finger food. (UKK Nutrition and Metabolic Diseases of the Indonesian Pediatrician Association, 2018). The proportion of consumption of various types of food in infants aged 6-23 months is still 46.6 %. vitamin A, other vegetables and fruits. even though according to the recommendations for giving MP ASI IDAI children should be introduced to various types of food. The types of instant food given to research respondents were in the form of porridge, usually brown rice, rice flour and a mixture of animal protein such as chicken, meat and chicken liver.

From the results of other studies, it was stated that there were research samples that were given MP-ASI not in accordance with the proper MP-ASI guidelines so that it became one of the factors for constipation (Lecturer et al., n.d.).

Table 2. Score before massage I L U

Respondent Name	Shoes Rome IV	Bristol Stool Chart
Respondent 1	2	Type 1
Respondent 2	3	Type 1
Respondent 3	3	Type 2
Respondent 4	2	Type 2

Respondent 5	3	Type 2

Table 3. score after massage I L U

Respondent Name	Week I		Week II	
	Shoes Rome IV	Bristol Stool Chart	Shoes Rome IV	Bristol Stool Chart
Respondent 1	1	Type 2	0	Type 4
Respondent 2	2	Type 2	0	Type 4
Respondent 3	2	Type 3	0	Type 3
Respondent 4	1	Type 3	1	Type 3
Respondent 5	2	Type 2	1	Type 4

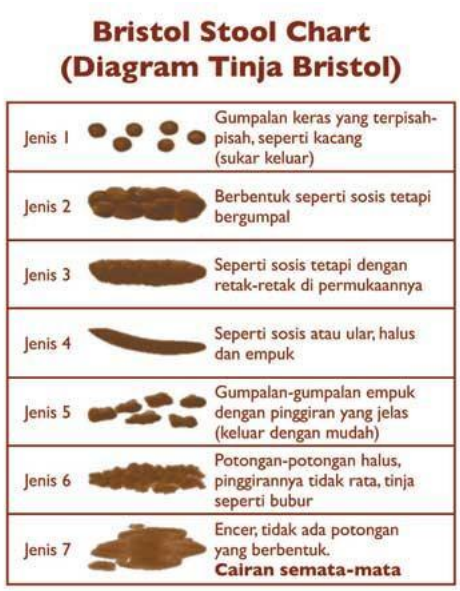

Figure 1. Bristol Stool Chart

Source: (Wegh et al., 2021)

Table 4. Criteria for Rome IV

No	Criteria
1	In one week≤ 2 times CHAPTER
2	Straining that is difficult and causes pain
3	There is a history of hard and large stools

Source: (Gastrohepatologist et al., n.d.)

3.2 Discussions

Based on the Bristol Stool Chart, it is stated that stool conditions are found at 1-2 constipation, 3-4 normal, 5-7 diarrhea.

From the results of the table above, it was found that the food consumed by 5 respondents, 2 of them were instant and 3 of them were non-instant. In this case it is not asked in detail what types of non-instant food are in detail. Respondents who

were given non-instant food received a Rome IV score of 2 and a Bristol stool chart of 2 indicating constipation. Even though they did not study it in too much detail, there were research results which said that MP-ASI given was not in accordance with the guidelines for giving MP-ASI issued by the Ministry of Health in 2020 which could affect the incidence of constipation (Lecturer et al., n.d.).

The literature states that in giving complementary foods, it is not recommended to give foods that are too sweet, salty, with preservatives and artificial coloring. In addition, foods with high gas content are also not recommended to be consumed in large quantities, such as cabbage, cauliflower, radishes because these two foods can make the baby's stomach bloated. Giving complementary food to the baby must be given gradually and in small portions to see whether the baby is allergic to the food being given. (mother's knowledge). In addition to diet and activity, hard and soft stools can also be affected by fluid intake, namely the amount of fluid consumed by the body, whether it comes from drinks or food. Fluidfunctions as a lubricant that helps the rest of metabolism move along the colon, the body will reabsorb water in the intestine and this condition requires water so it can be seen that if we lack fluids, the stool produced is hard (Claudina et al., 2018).

The need for fluids in infants aged 7-12 months is 800 ml/day. in this study the results showed that 2 out of 5 respondents the amount of fluid consumed was <800 ml/day. However, 3 respondents who experienced constipation consumed fluids >800 ml/day. Although only a portion of those who consume <800 ml/day of fluids experience constipation, there are other factors that cause constipation.

Parents sometimes do not pay attention to the factors that affect constipation, feel natural about what is happening, think that constipation can only occur in adults. According to the results of the study, because both parents worked, the baby was entrusted to caregivers, grandparents, so that parents paid less attention to identification of caregivers in the form of urination or defecation, so that when the baby was constipated and took him to the doctor, when anamnesis was carried out, he could not find out the pattern of bowel habits. child defecation.

When it is constipated, the child is fussy, the parents give laxatives. The negative impact of using laxatives if not used according to indications will cause nausea, vomiting, cramps, headaches, diarrhea, dehydration, fluid and electrolyte imbalances and hypokalemi. (Vilanova-Sanchez, 2018). Other research states that the impact of using laxatives is a rash on the perineum, dermatitis can also occur when patients need higher doses (Paré & Fedorak, 2014).

Non-pharmacological therapy can be used to avoid side effects caused by pharmacological therapy. There are several non-pharmacological therapies used to treat constipation, including herbal medicine and traditional medicine. Herbal remedies used to treat constipation include fig syrup and senna flowers. Glucomannan is a fiber gel made from konjac which is effective for treating constipation in children. (Paknejad et al., 2019)

Apart from the use of herbs, there is literature mentioning the Persian state in using cupping (dry cupping) to treat constipation in children, and in India using Ayurvedic medicine in the treatment of constipation in children (Paknejad et al., 2019). The results of research on the use of Chiropractic in treating constipation in babies 10 months, it turns out that it is done 3x a week for 1 month can overcome constipation problems. The results of other studies also mention chiropractic on

cranio sacral which is done on babies 7 months for 6 visits for 2 weeks to make digestion normal (Alcantara et al., 2014).

In another study, acupressure was mentioned to treat constipation, by doing acupuncture at the LI point, 11 children aged 5 years who were given therapy then defecated after 2 hours of being given acupuncture. The needle used is small and given in the forearm (Wegh et al., 2022). From some of the research results above regarding non-pharmacological therapy as an alternative to dealing with constipation, baby massage can also be used to reduce or avoid constipation. Massage is a complementary therapy that has been around for a long time, has no significant side effects, is easy to learn and inexpensive. Massage "I L U" is present in non-pharmacological efforts to treat constipation (Wegh et al., 2022b).

In the results of this study, the values of the five respondents were obtained before being given the massage "I L U" Rome IV criteria scored 2-3 and the type of feces based on the Bristol stool chart was at type 1-2 after one week of massage the results obtained Rome IV score 1 and 2 of these assessments have seen a decrease even by 1 point while the Bristol stool chart gets a score of 2-3 in this assessment there is also an increase, which means that the "I L U" Massage has an effect on overcoming constipation. Meanwhile, in the second week, the Rome IV results were 0-1 and the Bristol Chart results were 3-4.

The results of this study indicate that "I L U" massage can reduce the incidence of constipation. The results of the study state that massage performed on infants can reduce constipation. Specifically, massage is performed on the baby's abdominal area, there is stimulation in the form of gentle pressure on the abdominal wall alternately pressing and releasing sessions on gastrointestinal tract, distorts the size of the lumen and activates stretch receptors which can strengthen the gastrocolic reflex and trigger intestinal and rectal contractions (Suarsyaf et al., n.d.-b). The journey of food into feces then exits through the anus, peristaltic waves move the stool to the sigmoid colon and rectum, the sensory nerves in the rectum are stimulated and finally the urge to defecate appears, the internal anal sphincter is relaxed so the stool will run towards the anus and when sitting on the toilet the external anal sphincter will react.

In this theory, stimulation helps the appearance of walking feces. The "ILU" massage movement forms the direction of travel of the intestine, starting from the "I" movement in the descending colon direction, the "L" movement in the transverse colon direction, and the "U" movement in the descending colon direction. Massage "I L U" which is a massage performed on the abdomen, the movement leads according to the colon path leading to the rectum can be a movement to push feces, such asneurology, massage can produce rectal waves that stimulate somato-autonomic reflexes and provide sensation to the large intestine (Suarsyaf et al., n.d.-b).

4. Conclusion

From the observations of 5 respondents who had "I L U" massage for 2 weeks using 2 assessment indicators, it was concluded that there was a decrease in the Rome IV value and an increase in the Bristol Stool Chart value which indicated that there was an effect of "ILU" massage on reducing the incidence of constipation.

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