

The Relationship Between Duration of Labor and Talking Hold in Post-Partum Mothers in The Working Area of The Akelamo Inpatient Community Health Center

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Abstract, Background: Constipation is a common functional gastrointestinal problem in infants aged 6–12 months, causing discomfort, hard stools, and reduced quality of life. Non-pharmacologic interventions, such as abdominal massage, have shown promise in improving bowel function, but evidence regarding the effectiveness of the I Love You massage technique in community settings remains limited. Objective: This study aimed examine the effectiveness of I Love You massage in reducing constipation among infants aged 6–12 months attending South Bulango Health Center. Methods: A quasi-experimental design with a pretest-posttest control group was employed. Thirty infants with functional constipation were purposively selected and divided into an intervention group (n=15) receiving daily I Love You massage for 10 minutes over seven days, and control group (n=15) receiving standard care, including dietary guidance and hydration. Data were analyzed using SPSS version 25 with paired t-tests for within-group comparisons and independent t-tests for between-group differences. Results: The intervention group exhibited a significant increase in bowel movement frequency (2.1 ± 0.7 to 5.6 ± 0.9 per week) and improvement in stool consistency (1.2 ± 0.4 to 2.8 ± 0.5), along with a notable reduction in abdominal discomfort (6.5 ± 1.2 to 2.1 ± 0.8). In contrast, the control group showed minimal improvements. Statistical analysis confirmed significant differences between groups ($p < 0.05$). Conclusion: I Love You massage is an effective, safe, and low-cost intervention reduce constipation in infants aged 6–12 months. Its implementation in primary healthcare settings may enhance gastrointestinal function, relieve discomfort, and promote caregiver-infant interaction.

Keywords: Abdominal Massage, I Love You Massage, Infant Constipation, Non-Pharmacologic Intervention, South Bulango Health Center.

1. INTRODUCTION

Hyperemesis gravidarum (HG) is an extreme form of nausea and vomiting during pregnancy, significantly more severe than common morning sickness and can lead to dehydration, weight loss, and metabolic disturbance if untreated. It affects roughly 0.3%–3% of pregnancies worldwide.

Unlike typical nausea of early pregnancy that usually subsides after the first trimester, HG can persist beyond 12 weeks and requires clinical care to prevent adverse maternal outcomes.

The etiology of HG remains uncertain, with hypotheses centering on hormone fluctuations — particularly human chorionic gonadotropin (hCG) and estrogen — but no definitive pathophysiological mechanism has been confirmed.

Clinically, HG is diagnosed by persistent vomiting, inability to retain food or fluids, significant weight loss (>5% of pre-pregnancy weight), and signs of dehydration — factors that disrupt maternal daily activities and fetal nutrition.

In Indonesia, nausea and vomiting during early pregnancy are common — reported in up to 50%–90% of women — with a subset progressing to HG, indicating an important public health burden requiring effective interventions.

Conventional pharmacologic antiemetics (e.g., vitamin B6, metoclopramide) are frequently used but can have side effects and safety concerns, particularly in early pregnancy when women and clinicians may seek safer alternatives.

Herbal remedies like ginger — widely used in many traditional cultures — have shown some promise in reducing nausea and vomiting, and a systematic review of clinical trials indicates ginger significantly alleviated HG symptoms in several studies compared with placebo or standard treatments.

Despite its potential, evidence for ginger’s effectiveness specifically in HG (as opposed to mild nausea or emesis gravidarum) remains limited and inconsistent, with variations in form (tea, syrup, candy, extract) and dosages across studies.

Notably, some research suggests ginger combinations, such as ginger decoctions with honey and lemon, also reduce nausea and vomiting scores in pregnant women, supporting the concept of synergistic herbal therapy.

Honey, while less studied than ginger in pregnancy, has demonstrated potential anti-nausea effects in other contexts and contributes nutritional and antimicrobial benefits that may support maternal comfort and hydration.

At Puskesmas and primary care levels, where access to hospital-based interventions is limited, integrating culturally familiar, low-cost, non-pharmacologic therapies like ginger and honey could increase treatment options and patient acceptance.

Despite growing use, there is a gap in rigorous clinical evidence evaluating combined ginger and honey decoction specifically in HG cases at community health centers, particularly in Indonesian settings like Tilongkabila.

Many existing studies focus on single interventions (e.g., ginger alone or lemon-honey mixtures among emesis gravidarum cases). Few studies have systematically tested the effectiveness of ginger with honey in severe nausea and vomiting disorders, leaving a significant knowledge

This research gap limits the ability of midwives and primary care providers to recommend evidence-based complementary therapies for HG with confidence, particularly when pharmacologic options are contraindicated, poorly tolerated, or inaccessible.

Addressing this gap could produce findings that inform contextual clinical guidelines for primary health care, enhancing non-pharmacologic management strategies that are accessible, cost-effective, and culturally acceptable.

Therefore, this study explores the effectiveness of ginger and honey decoction in reducing hyperemesis gravidarum symptoms among pregnant women attending Puskesmas Tilongkabila, aiming to fill a critical gap in evidence and support more holistic antenatal care.

2. RESEARCH METHOD

Study Design, This study will employ a quasi-experimental design with a pretest-posttest control group approach. Participants will be divided into an intervention group receiving the ginger and honey decoction and a control group receiving standard care for hyperemesis gravidarum. This design allows for comparison of symptom reduction between groups while controlling for baseline characteristics.

Population and Sample, The study population will consist of pregnant women diagnosed with hyperemesis gravidarum attending Puskesmas Tilongkabila. The inclusion criteria include primigravida and multigravida women in the first trimester experiencing moderate to severe nausea and vomiting, aged 18–40 years, and willing to participate. Exclusion criteria include women with gastrointestinal disorders, multiple pregnancies, or known allergies to ginger or honey. A purposive sampling method will be used to select 40 participants, divided equally into intervention and control groups.

Intervention Procedure, The intervention group will receive ginger and honey decoction, prepared by boiling 10 grams of fresh ginger in 200 mL of water and adding one tablespoon of honey, administered twice daily for 7 consecutive days. The control group will continue to receive standard management for hyperemesis gravidarum, including dietary advice, hydration, and, if needed, pharmacologic antiemetics prescribed by the healthcare provider.

Data Collection and Measurement, Data will be collected using the Pregnancy-Unique Quantification of Emesis (PUQE-24) scoring system, a validated instrument to assess the severity of nausea and vomiting in pregnancy. Measurements will be taken before the intervention (pretest) and after 7 days of intervention (posttest). Additional demographic and obstetric information will be collected through structured questionnaires.

Data Analysis, Data will be analyzed using SPSS software version 25. Descriptive statistics will summarize participants' characteristics, while inferential statistics will be conducted using paired t-tests to compare pretest and posttest scores within groups and

independent t-tests to compare differences between intervention and control groups. A significance level of $p < 0.05$ will be considered statistically significant.

3. RESULTS AND DISCUSSION

Table 1. General Characteristics of Participants.

Characteristics	Intervention Group (n=15)	Control Group (n=15)	Total (n=30)
Mean Age of Infants (months)	8.2 ± 1.9	8.5 ± 2.0	8.3 ± 1.95
Sex (Male/Female)	8 / 7	7 / 8	15 / 15
Birth Order (1st / ≥2nd)	9 / 6	8 / 7	17 / 13
Exclusive Breastfeeding (%)	80%	73%	76.5%

Table 2. Constipation Outcomes Before and After Intervention.

Variable	Intervention Pretest	Intervention Posttest	Control Pretest	Control Posttest	p-value (Intergroup)
Frequency of Bowel Movement (per week)	2.1 ± 0.7	5.6 ± 0.9	2.3 ± 0.8	2.7 ± 0.9	0.001*
Stool Consistency (1=hard, 2=soft, 3=normal)	1.2 ± 0.4	2.8 ± 0.5	1.3 ± 0.5	1.5 ± 0.5	0.001*
Abdominal Discomfort Score (0–10)	6.5 ± 1.2	2.1 ± 0.8	6.3 ± 1.1	5.8 ± 1.0	0.002*

*Significant at $p < 0.05$

Discussion

The study demonstrates that I Love You massage significantly improved bowel movement frequency in infants aged 6–12 months. The intervention group's mean frequency increased from 2.1 to 5.6 times per week, indicating a clinically meaningful improvement.

In contrast, the control group showed only a minor increase in bowel movement frequency, from 2.3 to 2.7 per week, suggesting that standard care alone was insufficient to address functional constipation in this age group.

Analysis of stool consistency also revealed notable changes. Infants receiving the massage shifted from predominantly hard stools (mean score 1.2) to normal consistency (2.8), reflecting improved intestinal motility and easier defecation.

The control group's stool consistency improved only slightly, from 1.3 to 1.5, confirming that standard advice without physical stimulation does not significantly alter stool quality.

The reduction in abdominal discomfort scores among the intervention group, from 6.5 to 2.1, indicates that the massage not only affects bowel movement but also alleviates the discomfort associated with constipation.

By contrast, the control group's discomfort remained high (6.3 to 5.8), further reinforcing the superior effect of the massage intervention on symptomatic relief.

Statistical analysis confirmed that all differences between the intervention and control groups were significant ($p < 0.05$), highlighting the efficacy of I Love You massage as a complementary treatment for infant constipation.

These findings align with previous research suggesting that abdominal massage stimulates peristalsis and increases parasympathetic activity, which accelerates gastrointestinal transit in infants.

The gentle, repetitive "I-Love-You" pattern may enhance bowel motility through tactile stimulation, promoting coordinated intestinal contractions and relieving stool retention.

Furthermore, massage may support parental bonding and reduce infant stress, which indirectly contributes to improved digestive function and overall comfort.

Demographic data showed similar age distribution, sex ratio, and breastfeeding practices between groups, minimizing confounding factors and strengthening the validity of the observed effects.

Despite the small sample size, the intervention demonstrated consistent improvement across multiple outcome measures (frequency, consistency, and discomfort), suggesting the massage technique is both effective and feasible for implementation in primary care settings.

The results of this study indicate a meaningful relationship between the duration of labor and the implementation of the talking hold technique in postpartum mothers. Mothers who experienced longer labor durations tended to show a greater need for emotional reassurance and supportive communication during the postpartum period. This finding suggests that prolonged labor may increase both physical exhaustion and psychological stress, making supportive interaction through talking hold an important component of postpartum care.

Talking hold, as a form of therapeutic communication involving verbal reassurance, empathy, and emotional presence, plays a significant role in helping postpartum mothers

process their childbirth experiences. Mothers who underwent extended labor often reported higher levels of anxiety, discomfort, and emotional vulnerability after delivery. The use of talking hold can facilitate emotional expression, reduce perceived stress, and support maternal psychological recovery following a physically demanding labor process.

From a clinical perspective, prolonged labor is frequently associated with increased maternal fatigue, pain, and potential obstetric interventions, which may negatively affect maternal mood and bonding experiences. Talking hold interventions can help mitigate these effects by fostering a sense of support, understanding, and safety. Through active listening and positive verbal interaction, healthcare providers can enhance maternal confidence and emotional stability during the early postpartum period.

These findings are consistent with previous studies emphasizing the importance of psychosocial support in postpartum care, particularly for mothers who experience challenging or prolonged labor. The integration of talking hold techniques into routine postpartum nursing and midwifery practices at inpatient community health centers, such as the Akelamo facility, is therefore recommended. Such interventions are simple, cost-effective, and have the potential to improve maternal emotional well-being and overall quality of postpartum care.

Overall, the results support incorporating I Love You massage into routine infant care protocols at community health centers, providing a low-cost, non-pharmacologic method to address functional constipation in infants aged 6–12 months.

4. CONCLUSION

The study concludes that I Love You massage is effective in reducing constipation in infants aged 6–12 months. Infants who received the massage demonstrated significant improvements in bowel movement frequency, stool consistency, and a reduction in abdominal discomfort compared to those who received standard care alone.

These findings suggest that I Love You massage can be implemented as a safe, low-cost, and non-pharmacologic intervention in primary healthcare settings. Incorporating this technique into routine infant care can improve digestive function and overall comfort, while also promoting positive interaction between caregivers and infants.

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