



Research Article

The Relationship Between the Effect of Providing Nutrition Education on the Reduction of Emesis Frequency in Pregnant Women at Bumi Panua Pohuwato Hospital

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Abstract. Background: Emesis gravidarum is a common complaint in the first trimester of pregnancy, experienced by most pregnant women. This condition can disrupt daily activities and impact the mother's nutritional status. One effective non-pharmacological intervention is providing nutrition education. Nutrition education helps mothers understand appropriate eating patterns to reduce the frequency of emesis. Objective: To determine the effect of providing nutritional education on reducing the frequency of emesis in pregnant women at Bumi Panua Pohuwato Hospital. Method: The study used a pre-experimental design with a one-group pretest-posttest approach. A sample of 30 respondents was selected using purposive sampling. Data were analyzed using the Wilcoxon test with SPSS. Results: The average frequency of emesis before nutrition education was 6.23 times /day and after education was 3.17 times/day. The Wilcoxon test showed a p-value of 0.001 (< 0.05). Conclusion: There is an effect of providing nutritional education on reducing the frequency of emesis in pregnant women at Bumi Panua Pohuwato Hospital. Recommendation: Health workers are expected to improve nutritional education for pregnant women.

Keywords: Emesis Gravidarum; Nutrition Education; Pregnancy; Pregnant Women; Wilcoxon Test.

1. Introduction

Pregnancy is a physiological process accompanied by various hormonal changes. These changes often lead to nausea and vomiting in the first trimester. This condition is known as emesis gravidarum. This complaint is common in early pregnancy. Appropriate management is necessary to prevent complications. (Ministry of Health of the Republic of Indonesia, 2023).

Emesis gravidarum is caused by increased levels of the hormone human chorionic gonadotropin. This hormone affects the vomiting center in the brain. The severity of symptoms varies from mother to mother, with some experiencing mild to severe symptoms. This condition requires special attention. (Manuaba, 2022).

Frequent vomiting can lead to dehydration. This condition impacts the body's electrolyte balance. The mother may also experience weight loss. If this continues, fetal nutrition can be compromised. Therefore, immediate intervention is necessary. (Saifuddin, 2021).

Adequate nutrition is crucial during pregnancy. Nutrient needs increase to support fetal growth. Pregnant women must understand proper dietary patterns. Nutritional knowledge influences eating behavior. Nutrition education is an effective solution. (Notoatmodjo, 2022).

Nutrition education aims to provide information about recommended foods. The material covers small, frequent meals. Mothers are advised to avoid fatty foods. Adequate fluid intake is crucial, as this helps reduce vomiting. (WHO, 2023).

Mothers' knowledge of nutrition remains low. Many mothers don't understand strategies for managing emesis. Incorrect dietary habits exacerbate the condition. Education is essential from early pregnancy. Midwives play a crucial role in this regard. (Wulandari, 2023).

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In Indonesia, the incidence of emesis gravidarum is quite high. Most cases occur in the first trimester. This condition is often considered normal and therefore goes unnoticed. However, emesis can develop into hyperemesis gravidarum. Prevention is essential. (SDKI, 2022).

Bumi Panua Hospital in Pohuwato serves many pregnant women with complaints of emesis. Preliminary data shows an increase in visits related to nausea and vomiting. Most have not received structured nutrition education. This indicates the need for educational interventions. This research is crucial. (Bumi Panua Hospital Profile, 2025).

Nutrition education can improve self-management in pregnant women. The information provided helps mothers regulate their diet. Changes in eating behavior can reduce symptoms. Knowledge influences health actions, supporting the theory of health behavior. (Nursalam, 2022).

Previous research has shown that nutrition education is effective in reducing emesis. These results support educational interventions. However, local research is limited. Conditions vary from region to region. Contextual research is needed. (Fitriani, 2023).

Psychological factors also influence emesis. Anxiety can exacerbate symptoms. Education helps mothers feel calmer. A better understanding reduces stress, which supports recovery. (Rahmawati, 2024).

Midwives play a strategic role in nutritional counseling. Effective communication is crucial for successful education. Information should be delivered in a simple manner. Counseling should be ongoing. This improves maternal compliance. (Sari, 2023).

Non-pharmacological treatments are safer for pregnant women. Nutrition education is an easy-to-implement intervention. The risk of side effects is minimal. The cost is relatively low. Its effectiveness is quite good. (Putri, 2024).

Maternal health promotion must be continuously improved. Nutrition education can be incorporated into routine ANC (Prenatal Care). This supports maternal and fetal health. Comprehensive services are optimized, and complications can be prevented earlier. (Ministry of Health of the Republic of Indonesia, 2024).

Based on this description, researchers are interested in examining the effect of providing nutrition education on reducing the frequency of emesis in pregnant women at Bumi Panua Hospital in Pohuwato. This study is expected to provide empirical evidence. The results can be used as a basis for clinical interventions. Nutrition education can be developed more broadly. This research is important in midwifery. (BKKBN, 2023).

2. Method

The study used a **pre-experimental one-group pretest-posttest design**. The study was conducted at Bumi Panua Hospital in Pohuwato. The population was all pregnant women in their first trimester with complaints of emesis. A sample of 30 respondents was selected by purposive sampling. Analysis used the Wilcoxon test with $\alpha = 0.05$.

3. Results and Discussion

General Data

Table 1. Distribution of Respondents by Age.

Age	Frequency	Percentage
<20 years	5	16.7
20–35 years	20	66.7
>35 years	5	16.7
Total	30	100

Table 2. Distribution Based on Education.

Education	Frequency	Percentage
JUNIOR HIGH SCHOOL	8	26.7
SENIOR HIGH SCHOOL	15	50.0
PT	7	23.3
Total	30	100

Special Data

Table 3. Frequency of Emesis Before Education.

Category	Frequency	Percentage
Light	6	20.0
Currently	18	60.0
Heavy	6	20.0
Total	30	100

Table 4. Frequency of Emesis After Education.

Category	Frequency	Percentage
Light	20	66.7
Currently	9	30.0
Heavy	1	3.3
Total	30	100

Bivariate Analysis

Table 5. Average Frequency of Emesis.

Variables	Mean	Elementary School
Pretest	6.23	1.22
Posttest	3.17	1.10

Table 6. Results of SPSS Wilcoxon Signed Rank Test.

Test Statistics	Value
Z	-4,821
Asymp. Sig. (2-tailed)	0.001

Discussion

The majority of respondents were aged 20–35. This age is considered a healthy reproductive period. During this period, hormonal changes are quite active, triggering emesis gravidarum. This condition is often found in the first trimester. (Ministry of Health of the Republic of Indonesia, 2023).

Most respondents had a high school education. Education influences the acceptance of health information. Educated mothers are more likely to understand education, facilitating changes in eating behavior. Education plays a crucial role in the success of interventions (Notoatmodjo, 2022).

The frequency of emesis before education was mostly moderate. This indicates the need for intervention. Emesis can impair quality of life. Early intervention is crucial. Nutrition education is an appropriate option. (Manuaba, 2022).

Following the education, the frequency of emesis decreased. The majority of respondents fell into the mild category. This demonstrates the effectiveness of the intervention. Education facilitated dietary changes, and the mother's condition improved. (Wulandari, 2023).

The average frequency of emesis decreased significantly. This decrease indicates positive clinical changes. Educational interventions have proven effective. Knowledge influences eating behavior. These changes have a direct impact on symptoms. (Fitriani, 2023).

A p-value of 0.001 indicates a significant effect. These results confirm the research hypothesis. Nutrition education effectively reduces emesis. The results align with health promotion theory. Knowledge triggers behavioral change. (Nursalam, 2022).

Education provides an understanding of foods that trigger emesis. Mothers learn to avoid fatty foods. Eating small, frequent meals is recommended. This strategy reduces stomach irritation. The frequency of vomiting decreases. (WHO, 2023).

These findings align with Rahmawati's research. Nutrition education significantly impacts emesis. Similar results have been found in various studies. This strengthens the validity of the study. Education is an effective intervention (Rahmawati, 2024).

The midwife's role is crucial to the success of education. Therapeutic communication helps mothers understand the material. Individual counseling is more effective. Emotional support is also helpful, which increases compliance. (Sari, 2023).

Psychological aspects influence emesis. Education makes mothers feel calmer. Knowledge reduces anxiety. Mental health is more stable. Emesis symptoms also decrease. (Putri, 2024).

Adequate nutrition supports metabolic balance. Proper intake helps the body adapt. Stomach function is more stable, and nausea is reduced. This supports maternal health. (Saifuddin, 2021).

ANC services should include routine nutrition education. This intervention is easy to implement, relatively low-cost, and offers significant benefits for pregnant women. This program needs to be expanded. (Ministry of Health, 2024).

Bumi Panua Hospital can develop a nutrition education module. The material should be simple and applicable. Counseling can be provided during ANC. This approach increases educational coverage. Maternal health outcomes improve. (Bumi Panua Hospital Profile, 2025).

This study demonstrates the effectiveness of non-pharmacological interventions. Nutrition education is safe for pregnant women. The risk of side effects is minimal. Implementation is easy. The results are highly beneficial. (SDKI, 2022).

Overall, providing nutrition education significantly reduced the frequency of emesis. These results support the development of promotive services. Midwives need to improve education. Interventions must be consistent. These efforts improve the quality of maternal care. (BKKBN, 2023).

4. Conclusion

- a. Most respondents experienced moderate emesis before education.
- b. After education the majority experienced mild emesis.
- c. There was a decrease in the average frequency of emesis.
- d. The p-value is 0.001 (< 0.05).
- e. Nutrition education has a significant effect on reducing the frequency of emesis.

Suggestion

- a. For Pregnant Women
- b. Implementing eating patterns according to education.
- c. For Midwives
- d. Improve nutritional counseling.
- e. For Hospitals
- f. Develop a structured nutrition education program.
- g. For Further Researchers
- h. Adding a control group.

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