

Original Research

A Descriptive Study of First Trimester Pregnant Women's Knowledge of Nausea and Vomiting

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ABSTRACT

Background: Pregnancy causes various physiological changes in women, one of which is hormonal changes that often cause discomfort in the form of nausea and vomiting in the first trimester. If not treated immediately, this condition can lead to fluid loss, fetal growth and development disorders, and even the risk of maternal death. This study aims to determine the level of knowledge of pregnant women in their first trimester about nausea and vomiting at the Bayat Community Health Center in Klaten Regency.

Methods: This study used a quantitative descriptive design with total sampling technique. The population consisted of all pregnant women in their first trimester who visited the Bayat Community Health Center in October 2022, totaling 60 respondents. The research instrument used a structured questionnaire, and the data were analyzed using frequency distribution.

Results: The results showed that most respondents were aged 20–35 years, had a high school education, worked as housewives, had received information about nausea and vomiting from midwives, and had two to four children. The level of knowledge of pregnant women in their first trimester was classified as good in terms of understanding, signs and symptoms, causes, prevention, and the effects of nausea and vomiting.

Conclusion: The knowledge of pregnant women in their first trimester at the Bayat Community Health Center in Klaten Regency about nausea and vomiting was in the good category. It is recommended that health workers, especially midwives, continue to improve education and counseling for pregnant women in their first trimester regarding the prevention and treatment of nausea and vomiting to reduce the risk of pregnancy complications.

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INTRODUCTION

Pregnancy is a special time for every woman because it involves significant physical and psychological changes. These physiological changes are largely caused by increased levels of estrogen and progesterone hormones, which affect the mother's metabolic system. Some mothers are able to adapt to these changes, but others experience

discomfort such as nausea and vomiting, especially in the first trimester of pregnancy (Malia, 2018; Pebrianthy & Farida, 2020). This discomfort is often considered normal, but if it is excessive, it can have a negative impact on the health of the mother and fetus.

Nausea and vomiting, or *emesis gravidarum*, are experienced by around 60–80% of primigravida pregnant women and 40–60% of multigravida women. These symptoms usually appear in the morning but can occur at any time during the day. This condition generally begins in early pregnancy and can continue until four months of pregnancy, with approximately 10–12% of pregnant women still experiencing it until the end of their pregnancy (Pebrianthy & Utaminingtyas, 2020). If not properly managed, excessive nausea and vomiting can develop into hyperemesis gravidarum, causing dehydration, electrolyte disturbances, and even threatening the safety of the mother and fetus (Zainiyah, 2019).

Preliminary data from the Bayat Community Health Center in Klaten Regency in 2022 shows that nausea and vomiting are still the main complaints among pregnant women in their first trimester. Of the 81 pregnant women who made their first visit in January, 54 experienced nausea and vomiting, while in the following months, the number of pregnant women experiencing similar complaints ranged from 30 to 44. This figure shows that nausea and vomiting are still a significant problem among pregnant women in the region. This condition highlights the importance of increasing pregnant women's understanding of the causes, prevention, and treatment of nausea and vomiting so that it does not develop into a more serious condition (Klaten District Health Office, 2022).

Previous studies show that the level of knowledge among pregnant women about nausea and vomiting still varies. The results of Malia's (2018) study show that most pregnant women have good knowledge about *emesis gravidarum*, while the study by Pebrianthy & Utaminingtyas (2020) found that most mothers have sufficient knowledge. These differences in results may be due to respondent characteristics, educational background, sources of information, and the role of health workers. This shows that health education provided by midwives is very important to improve pregnant women's understanding of nausea and vomiting from the first trimester.

Based on the above description, there is still an information gap regarding the level of knowledge of pregnant women in the first trimester about nausea and vomiting, especially in the Bayat Community Health Center area in Klaten Regency. This study is novel in terms of location, time, and respondent characteristics compared to previous studies. Therefore, this study aims to determine the knowledge of pregnant women in their first trimester about nausea and vomiting at the Bayat Community Health Center in Klaten Regency as a basis for improving education and midwifery services in early pregnancy.

MATERIALS AND METHODS

This study used a quantitative descriptive design with a cross-sectional approach. This design was chosen because it is suitable for describing the knowledge of pregnant women in their first trimester about nausea and vomiting at a single point in time without intervention. A quantitative descriptive design allows researchers to obtain an in-depth picture of the distribution of pregnant women's knowledge about phenomena occurring in society in an objective and measurable manner (Sugiyono, 2020).

The study was conducted at the Bayat Community Health Center in Klaten Regency, Central Java Province, as one of the primary health facilities actively providing antenatal care (ANC). This location was chosen because there were quite a number of

pregnant women in the area who experienced nausea and vomiting in the first trimester. The study was conducted from July to December 2022, covering the preparation, implementation, and reporting stages.

The research population consisted of all pregnant women in their first trimester who visited the Bayat Community Health Center in Klaten Regency in October 2022. The sampling technique used was total sampling, as the population size was relatively small and it was possible to include all members of the population in the sample. The sample size was 60 pregnant women in their first trimester who met the inclusion criteria, namely pregnant women in their first trimester who were willing to be respondents, able to read and write, and present at the time of data collection. The exclusion criteria included pregnant women who were experiencing severe pregnancy complications or were unwilling to complete the questionnaire.

The research variable in this study was the knowledge of pregnant women in their first trimester about nausea and vomiting. The instrument used was a closed questionnaire containing 26 questions with five sub-variables, namely the definition of nausea and vomiting, signs and symptoms, causes, prevention methods, and the impact of nausea and vomiting on pregnant women. Each correct answer was given a score of 1 and each incorrect answer was given a score of 0. Knowledge was categorized into three levels, namely good (76–100%), adequate (56–75%), and poor (<55%).

Before being used in the main study, the instrument underwent validity and reliability testing at the Cawas 1 Community Health Center in Klaten Regency. The validity test results showed that most of the questions had a positive and significant correlation, while the reliability test results using Cronbach's Alpha formula showed an α value of >0.60, which means that the instrument is reliable. This test ensures that the questionnaire can be used consistently and accurately in measuring respondents' knowledge about nausea and vomiting during pregnancy.

The data collection procedure was carried out by distributing questionnaires directly to respondents in each village within the working area of the Bayat Community Health Center through village midwives. Before filling out the questionnaire, the researchers provided explanations and instructions so that respondents could understand each question well. The collected data then went through the stages of editing, coding, scoring, and tabulating using the SPSS version 16 program, with univariate analysis to display the frequency distribution and percentage of each variable. This study also complied with research ethics principles of informed consent, anonymity, and confidentiality to protect the rights and confidentiality of respondents' identities.

RESULTS

Table 1. Frequency Distribution of Characteristics of First Trimester Pregnant Women Respondents at the Bayat Community Health Center, Klaten Regency, 2022 (n = 60)

Characteristics	Category	Frequency (n)	Percentage (%)
Age (years)	< 20	0	0
	20–35	52	86.7
	> 35	8	13.3
Education	Elementary	2	3.3
	Junior High School	18	30
	High School	34	56.7

Characteristics	Category	Frequency (n)	Percentage (%)
Occupation	PT	6	10
	Housewife	53	88.3
	Private	1	1.7
	Civil Servant	1	1.7
	Laborer	3	5
	Others	2	3.3
Number of Children (Parity)	1	23	38.3
	2–4	37	61.7
	> 4	0	0
Source of Information	Ever	54	90
	Never	6	10

Table 1 shows that most respondents were aged 20–35 years (86.7%) with a high school education (56.7%). The majority worked as housewives (88.3%) and had 2–4 children (61.7%). Most respondents had obtained information about nausea and vomiting (90.0%), indicating that access to information for pregnant women was quite good.

Table 2. Frequency Distribution of First Trimester Pregnant Women's Knowledge Level about Nausea and Vomiting at the Bayat Community Health Center, Klaten Regency, 2022 (n = 60)

Knowledge Category	Frequency (n)	Percentage (%)
Good	45	75
Fair	15	25
Insufficient	0	0.0
Total	60	100

Table 2. Shows that most pregnant women in the first trimester have good knowledge about nausea and vomiting (75%), while the rest have sufficient knowledge (25%). There were no respondents with poor knowledge, indicating that pregnant women's understanding of nausea and vomiting is already quite optimal.

Table 3. Distribution of Knowledge of First-Trimester Pregnant Women Based on Subvariables about Nausea and Vomiting at the Bayat Community Health Center, Klaten District, 2022 (n = 60)

Subvariable	Good (%)	Adequate (%)	Poor (%)
Understanding	100	0	0
Signs and Symptoms	70.0	25.0	5
Causes	66.7	33.3	0
Prevention Methods	51.7	41.7	6.7
Impact	75.0	25.0	0

Table 3 shows that pregnant women's knowledge about the definition of nausea and vomiting is completely good (100%). Knowledge about signs and symptoms (70%) and

effects (75%) is also good, while knowledge about prevention methods still needs to be improved because only 51.7% of mothers are in the good category.

Table 4. Distribution of Knowledge of Pregnant Women in the First Trimester about Nausea and Vomiting Based on Characteristics at the Bayat Health Center, Klaten District, 2022 (n = 60)

Characteristics	Category	Good (%)	Adequate (%)
Age (years)	20–35	65	21.7
	> 35	10.0	3.3
Education	High School	48.3	8.3
	Junior High School	23.3	6.7
Occupation	Housewife	68.3	20
	Laborer/Other	8.3	3.3
Source of Information	Ever	65	25
	Never	10	0
Number of Children (Parity)	1	31.7	6.7
	2–4	43.3	18.3

Table 4 shows that most pregnant women aged 20–35 years, with a high school education, working as housewives, and who had received information from midwives had good knowledge about nausea and vomiting. This indicates that productive age and exposure to information from health workers play an important role in increasing the knowledge of pregnant women in the first trimester.

DISCUSSION

The results of the study indicate that most pregnant women in their first trimester at the Bayat Community Health Center have a good level of knowledge about nausea and vomiting. The majority of respondents were aged 20–35 years, had a high school education, worked as housewives, and obtained information from midwives. These findings indicate that productive age and adequate exposure to information influence the level of knowledge of pregnant women. According to Malia (2018), productive age is a period of optimal physical and psychological readiness to receive information related to pregnancy health.

Education is one of the important factors related to the knowledge of pregnant women. Mothers with secondary education have a better ability to understand health information provided by health workers. Good knowledge helps mothers recognize the signs and symptoms of nausea and vomiting and know how to prevent them. This is in line with the opinion of Wawan and Dewi (2017), who explain that the higher a person's level of education, the easier it is for that individual to understand and apply healthy behaviors in their daily life.

Most pregnant women in this study worked as housewives, so they had more time to attend counseling sessions and undergo antenatal checkups. Counseling activities conducted by midwives were the main source of information that contributed to increasing mothers' knowledge. Research by Wijayanti (2017) also showed that

housewives had greater access to antenatal classes and health services that could increase their knowledge about nausea and vomiting during pregnancy.

In addition to education and employment, sources of information also play an important role in increasing the knowledge of pregnant women. Education provided by health workers, especially midwives, has been proven effective in increasing mothers' understanding of the causes, signs, and ways to overcome nausea and vomiting. Direct communication between midwives and pregnant women reinforces positive health behavior changes. These findings are in line with Somoyani's (2022) research, which states that repeated education and individual counseling by health workers can improve pregnant women's ability to cope with nausea and vomiting.

The implications of these research findings suggest that good knowledge helps pregnant women prevent and manage nausea and vomiting early on. Mothers who understand the causes and effects of nausea and vomiting tend to adopt healthy behaviors such as eating small but frequent meals, avoiding fatty foods, and maintaining adequate fluid intake. Utaminingsyas (2020) and Pebrianthy and Farida (2020) also found that nutrition education and healthy lifestyle behaviors can reduce the incidence of emesis gravidarum and improve the well-being of mothers and fetuses.

The limitation of this study lies in its descriptive design, which only describes the level of knowledge without identifying the cause-and-effect relationship between variables. In addition, the use of questionnaires as research instruments can cause bias because they depend on the subjective understanding of respondents. Therefore, further research is recommended using an analytical design that considers other variables such as family support, pregnancy experience, and the role of health workers. Health workers are also expected to increase the intensity of education and counseling in the early trimester to prevent complications from nausea and vomiting (Notoatmodjo, 2018).

CONCLUSION

The results showed that most pregnant women in their first trimester at the Bayat Community Health Center in Klaten Regency had a good level of knowledge about nausea and vomiting, including its definition, signs and symptoms, causes, prevention methods, and effects. Factors contributing to this good knowledge include productive age (20–35 years), secondary education, occupation as a housewife, and access to information obtained from midwives. These findings emphasize the importance of the role of health workers, especially midwives, in providing continuous education to pregnant women from the first trimester. Good knowledge is expected to shape positive attitudes and behaviors in preventing and overcoming nausea and vomiting during pregnancy, thereby improving the well-being of mothers and fetuses. Based on these results, it is recommended that community health centers increase the intensity of health education activities for pregnant women, expand the reach of information through posyandu cadres and community leaders, and encourage pregnant women to be more active in seeking and utilizing health information from reliable sources.

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