

ANALYSIS OF PREGNANT WOMEN'S ANXIETY FACTORS ON HYPEREMESIS GRAVIDARUM IN MUARASIPONGI HEALTH CENTER, MANDAILING NATAL DISTRICT, NORTH SUMATRA PROVINCE 2025

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ABSTRACT

Hyperemesis gravidarum is a severe form of nausea and vomiting during pregnancy that can lead to dehydration, weight loss, and a reduced quality of life. Psychological factors, particularly anxiety, can exacerbate this condition. This study aims to analyze the factors associated with anxiety levels in pregnant women with hyperemesis gravidarum, including age, number of births, and spousal support. This study employed a quantitative cross-sectional design with 48 respondents selected through a convenience sample. Data were collected using a checklist and the Perinatal Anxiety Screening Scale (PASS), then analyzed using the chi-square test ($p < 0.05$). The results showed that the majority of respondents were aged 20–35 years (70.8%), were primigravidas (56.3%), received low levels of spousal support (66.7%), and experienced severe anxiety (56.3%). There was a significant association between age ($p=0.006$) and number of births ($p=0.002$) and anxiety levels. Low spousal support was also associated with higher anxiety levels. In conclusion, age, number of births, and spousal support are significantly associated with anxiety levels in pregnant women with hyperemesis gravidarum. Strengthening family support and providing adequate education during pregnancy are crucial for reducing anxiety.

Keywords: Anxiety, Pregnant Women, Hypermesis Gravidarum, Psychological Factors, Pregnancy

INTRODUCTION

Hyperemesis gravidarum is a serious pregnancy-related condition characterized by persistent and excessive nausea and vomiting, which may result in dehydration, electrolyte disturbances, weight loss, and impairment of daily functioning. The World Health Organization (WHO) reports that nausea and vomiting occur in approximately 50–90% of pregnancies during the first trimester, whereas hyperemesis gravidarum is estimated to affect around 1–3% of pregnant women (Medved et al., 2023). Although hormonal changes are recognized as the primary cause, growing evidence suggests that psychological factors, particularly maternal anxiety, may contribute to the severity of this condition. Maternal anxiety is influenced by several factors, including maternal age, parity, and the level of support provided by the husband (Chen et al., 2025). Elevated anxiety may stimulate the release of stress-related hormones, which can interfere with gastrointestinal function and intensify nausea and vomiting during pregnancy. Preliminary observations conducted at the Muarasipongi Community Health Center indicated that many pregnant women diagnosed with hyperemesis gravidarum experienced considerable concern regarding their own health and the well-being of their unborn babies (Febrina Sukmahati et al., 2024). This study was conducted to identify the factors associated with anxiety among pregnant women diagnosed with hyperemesis gravidarum at the Muarasipongi Community Health Center in 2025. A quantitative study employing a cross-sectional approach was carried out among all 48 pregnant women with hyperemesis gravidarum. (Penny & Waters, 2024). The study applied a total sampling technique, allowing every eligible participant to be included. Data were obtained using a demographic characteristics checklist and the Perinatal Anxiety Screening Scale (PASS). The collected data were analyzed descriptively through univariate analysis, while the relationships between variables were examined using the Chi-square test with a significance level of $\alpha = 0.05$.

METHOD

This study employed a quantitative research method with a correlational design to investigate the association between maternal anxiety-related factors, including maternal age, parity, and husband's support, and the occurrence of hyperemesis gravidarum (Amiri et al., 2022). A cross-sectional approach was adopted, allowing the independent and dependent variables to be measured at the same point in time to assess their potential relationships. (Sinaga et al., 2024). The research was carried out in 2025 at the Muarasipongi Community Health Center, Mandailing Natal Regency, North Sumatra Province. The study population consisted of all pregnant women diagnosed with hyperemesis gravidarum who were registered at the health center during the study period, totaling 48 participants (Dr. arif rachman drg, 2024). Because the number of eligible participants was relatively small, a total sampling technique was applied, ensuring that every member of the target population was recruited. Consequently, the final sample included all 48 respondents. Data were gathered from both primary and secondary sources (Walker et al., 2025). Primary data were collected through face-to-face interviews and by administering the Perinatal Anxiety Screening Scale (PASS), a validated

instrument designed to evaluate anxiety symptoms during pregnancy. Secondary data were obtained from the medical records and routine health service reports maintained by the Muarasipongi Community Health Center (Trisnawati et al., 2020). Following data collection, all responses were coded, entered, and analyzed using the Statistical Package for the Social Sciences (SPSS).

RESULT

The study involved 48 pregnant women as respondents. Most participants were between 20 and 35 years of age, accounting for 34 women (70.8%). Meanwhile, six respondents (12.5%) were younger than 20 years, and eight respondents (16.7%) were older than 35 years. Based on parity, primigravida mothers constituted the largest proportion of the sample, with 27 respondents (56.3%), whereas 21 respondents (43.8%) were multigravidas. This finding indicates that more than half of the participants were undergoing their first pregnancy. Regarding spousal support, the majority of respondents (32 women; 66.7%) perceived that the support provided by their husbands was inadequate, while only 16 respondents (33.3%) reported receiving good support throughout their pregnancy. Assessment of anxiety using the Pregnancy-Related Anxiety Scale (PASS) demonstrated that severe anxiety was the most common category, affecting 27 respondents (56.3%). Mild to moderate anxiety was identified in 17 respondents (35.4%), whereas only four respondents (8.3%) reported no symptoms of anxiety. Bivariate analysis performed using the Chi-square test revealed statistically significant associations between maternal age and anxiety level among pregnant women with hyperemesis gravidarum ($p = 0.006$). Similarly, parity was significantly associated with anxiety level ($p = 0.002$). Husband's support was also found to have a significant relationship with maternal anxiety among women experiencing hyperemesis gravidarum (hestina reksi utami, 2023)

Table 1. Results of Bivariate Analysis of the Relationship between Teenage Pregnancy, External Variables and the Incidence of LBW in Gunungkidul Regency in 2023

Age	Anxiety in Pregnant Women						Amount	<i>P (Sign)</i>	
	No		Mild-		Heavy				
	Anxiety		Moderate						
	f	%	f	%	f	%	f		%
<20 year	0	0	0	0	6	12,5	6	12,5	0,006
20-35 year	1	2,1	15	31,3	18	37,5	34	70,8	
>35 year	3	6,3	2	4,2	3	6,3	8	16,7	
Total	4	8,3	17	35,4	27	56,3	48	100	

DISCUSSION

The findings of this study indicate that most pregnant women with hyperemesis gravidarum experienced severe anxiety. These results suggest that hyperemesis gravidarum affects not only the physical condition of pregnant women but also has a considerable impact on their psychological well-being (Pinem & Sinaga, 2024). Maternal age was found to be significantly associated with anxiety levels. Women who were younger than 20 years or older than 35 years tended to report higher anxiety compared with those within the optimal reproductive age range. Younger mothers often have limited emotional readiness and coping abilities when facing pregnancy, making them more vulnerable to anxiety (Tahir et al., 2025). In contrast, women aged over 35 years may experience greater psychological distress due to the increased likelihood of pregnancy-related complications, which can raise concerns about both maternal and fetal health. Parity also demonstrated a significant relationship with maternal anxiety. Primigravida women generally exhibited higher anxiety levels than multigravida women. This difference may be explained by the limited pregnancy experience among first-time mothers, who are less familiar with the physiological and emotional changes that occur during pregnancy. As a result, they are more likely to experience uncertainty, fear, and excessive concern about their pregnancy (izzatul arifah, 2020). Another important factor associated with maternal anxiety was the level of support provided by the husband. Emotional encouragement, practical assistance, and continuous involvement from a husband can enhance a pregnant woman's sense of security and help reduce anxiety. Conversely, insufficient support may increase feelings of isolation and emotional burden, thereby contributing to higher anxiety levels. Overall, these findings are consistent with previous studies demonstrating that psychological factors play an important role in hyperemesis gravidarum. Increased maternal anxiety has been associated with greater severity of nausea and vomiting during pregnancy, indicating that psychological well-being is an essential component in the management of hyperemesis gravidarum.

CONCLUSIONS

Based on the findings of this study conducted at the Muarasipongi Community Health Center, Mandailing Natal Regency, in 2025, it can be concluded that severe anxiety was the most common condition experienced by pregnant women with hyperemesis gravidarum. Statistical analysis demonstrated that maternal age, parity, and the level of husband's support were significantly associated with anxiety among the respondents (Jansen et al., 2024). Women who were within the high-risk age groups, those experiencing their first pregnancy, and those receiving inadequate support from their husbands were more likely to report higher anxiety levels than their counterparts. Elevated anxiety may worsen the symptoms of hyperemesis gravidarum and negatively affect both the physical condition and psychological well-being of pregnant women. These findings highlight the importance of strengthening maternal healthcare services. Midwives and healthcare professionals at community health centers are encouraged to provide comprehensive health education and counseling on both the physiological and emotional changes that occur during pregnancy, with particular attention to women diagnosed with hyperemesis gravidarum. In addition, husbands and other family members should be actively involved in offering emotional encouragement, practical assistance, adequate information, and continuous support to help reduce maternal anxiety. Pregnant women are also encouraged to actively seek reliable information regarding pregnancy, comply with scheduled antenatal care visits, and maintain effective communication with healthcare providers throughout pregnancy. For future research, studies involving larger sample sizes and additional

variables related to psychological, social, and environmental factors are recommended to obtain a broader understanding of anxiety associated with hyperemesis gravidarum. Such investigations are expected to provide stronger evidence for improving maternal healthcare practices and advancing knowledge in the field of obstetrics.

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CONFLICT OF INTEREST AND FUNDING DISCLOSURE

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AUTHOR CONTRIBUTIONS

Misbah Nasution: Conceptualization, methodology, analysis, writing, Zunianti: Supervision, validation, review, Marta Armita Br. Silaban: Data collection, review, Eva Dona Sinaga: Data analysis, review, Auliana Aldiga: Investigation, visualization, Dyanti SR Butarbutar: review.

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