RELATIONSHIP BETWEEN GRAVIDITY AND SEVERITY OF EMESIS GRAVIDARUM IN TRIMESTER I PREGNANT WOMEN AT PMB FATIMATU ZAHROK MIDWIFERY CARE, KEDIRI, EAST JAVA

Rahma Kusuma Dewi, Halimatus Saidah

Faculty of Health Sciences, Universitas Kadiri

ABSTRACT

Background: Emesis gravidarum or nausea and vomiting has commonly occurred during pregnancy. However, excessive nausea and vomiting in early pregnancy have a potentially adverse effect on pregnancy outcomes. This study aimed to investigate the relationship between gravidity and severity of emesis gravidarum in women with first-trimester of pregnancy at PMB Fatimatu Zahrok Midwifery Care, Kediri, East Java.
Subjects and Method: This was a cross-sectional study conducted at PMB Fatimatu Zahrok Midwifery Care, Kediri, East Java, from July to August 2020. A sample of 32 women with first-trimester of pregnancy was selected for this study. The dependent variable was severity of emesis gravidarum categorized into mild to moderate and severe. The independent variable was the number of gravidities categorized into primigravida and multigravida. The data were collected using questionnaire. The data were analyzed by chi-square.
Results: Multigravida reduced the severity of emesis gravidarum (OR= 0.14; 95% CI= 0.02 to 0.85; p= 0.034).
Conclusion: Multigravida reduces the severity of emesis gravidarum in women with first-trimester pregnancy.

Keywords: emesis gravidarum, first trimester, gravidity, severity, pregnant women

Correspondence:
Rahma Kusuma Dewi. Faculty of Health Sciences, Universitas Kadiri. Jl. Selomangleng No 1, Kediri, East Java. Email: rahmakusumadewi@unik-kediri.ac.id. Mobile: +6281229440101.

BACKGROUND

Pregnancy, also known as gravidity or gestation, is when one or more babies develop in a woman. The average gestation period for humans is 280 days, or 40 weeks, from the first day of a woman's last menstrual period (Stephanie et al., 2016). Pregnancy is the fetus's intra-uterine growth and development from conception and ending until the onset of labor.

The events of pregnancy are known as primigravidas and multigravidas. Primigravidas are women who get pregnant for the first time, while multigravidas are pregnant women who have previously been pregnant more than once.

In pregnancy, there are changes in physiological anatomy. In addition to these changes, pregnant women experience discomfort in pregnancy such as fatigue, vaginal discharge, cravings, frequent urination, and emesis gravidarum (Kusmiyati, 2009). One of the physiological changes during pregnancy is a change in the digestive system. During pregnancy, decreased appetite, reduced intestinal secretions, altered liver function, and increased nutrient absorption.

Peristaltic activity (motility) decreases, as a result, bowel sounds are reduced, resulting in stagnation of the intestinal lumen. This impulse conveyed to the cerebral cortex, then perceived as a full feeling in the stomach, re-

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sulting in nausea and vomiting, and lack of appetite. In the first trimester, a result of changes in the digestive tract and increased levels of progesterone, estrogen, and human chorionic gonadotropin (hCG) can trigger nausea and vomiting.

The increase in the hormone progesterone causes the smooth muscle in the gastrointestinal system to relax so that gastric motility decreases and gastric emptying slows down. Esophageal reflux, decreased gastric motility, and decreased hydrochloric acid secretion also contribute to nausea and vomiting. This is exacerbated by other causes related to psychological, spiritual, environmental, and sociocultural factors (Hutahaean, 2009; Runiari, 2010).

Nausea and vomiting are the results of changes in the endocrine system that occur during pregnancy, especially the increase in the hormone hCG in pregnancy, which is a common complaint of nearly 50-80% of pregnant women. This problem begins around the 4th week of pregnancy, and usually continues through the 16th week in some mothers (Rad et al., 2012; Festin, 2014; Heuvel et al., 2016; Tara et al., 2020).

Although the condition is self-limiting, most begin at ten weeks and resolve by 20 weeks of gestation. In more severe cases, 10–45% of women, do not resolve until after birth (Hizli et al., 2012; Kramel et al., 2013; Poursharif et al., 2008; Rashid et al., 2012; Cluver et al., 2017). The study reported that 10-35% of patients, symptoms of nausea and vomiting in pregnancy increase in feelings of depression, and can cause a negative impact on jobs, household chores, parenting, and family relations (Attard et al., 2002; Mazzota & Maltepee, 2000; Mazzota and Stewart, 2000; Niebyl, 2010; Smith et al., 2000).

It is not clear what causes emesis gravidarum to date, but nausea and vomiting are considered to be multifactorial problems. Related theories are hormonal factors, vestibular system, psychological digestion, hyperolfaction, and genetics. The incidence of emesis gravidarum is experienced by most pregnant women, and both primigravida and multigravida, emesis gravidarum occurs in 60-80% primigravida and 40-60% multigravida (Rudiyanti and Rosmadewi, 2019).

Nausea and vomiting tend to be more sensitive to anxiety and fear, which ultimately disturbs the stomach. Primigravidas are at risk of experiencing nausea and vomiting as much as 53.5%, 36.4% in multigravidas, and 11.1% in multigravida grande (Wiwik et al., 2016).

With the above background, it is necessary to research age and anxiety in pregnant women. This study aimed to determine the relationship between parity and emesis gravidarum in first-trimester pregnant women.

SUBJECTS AND METHOD

1. Study Design

This was a cross-sectional study conducted at PMB Fatimatu Zahrok Midwifery Care, Kediri, East Java, from July to August 2020.

2. Population and Sample

A sample of 32 women with first-trimester of pregnancy was selected for this study.

3. Study Variables

The dependent variable was the severity of emesis gravidarum categorized into mild to moderate and severe. The independent variable was the number of gravidities cate-gorized into primigravida and multigravida.

4. Data Analysis

The data were collected using questionnaire. The data were analyzed by chi-square.

RESULTS

1. Sample Characteristics

Based on table 1 showed that most of study subjects aged between 20-35 years (62.5%), secondary education level (71.9%), housewives (56.3%), secondigravida (43.8%), experi-

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enceed moderate emesis gravidarum (59.4%).

Table 1. Sample Characteristics (categorical data)

Characteristics	Categories	Frequency (n)	Percentage (%)
Age (years)	<20 years	5	15.6%
	20-35 years	20	62.5%
	> 35 years	7	21.9%
Education	Basic (SD-SMP)	2	6.3%
	Middle (SMA)	23	71.9%
	High (PT)	7	21.9%
Work status	Housewives	18	56.3%
	Private/ Self-employed	11	34.4%
	Civil worker	3	9.4%
Gravidity	Primigravida	13	40.6%
	secondigravida	14	43.8%
	Multigravida	5	15.6%
Emesis Gravidarum	Mild	5	15.6%
	Moderate	19	59.4%
	Severe	8	25.0%

2. Bivariate Analysis

Table 2 showed a significant relationship between parity and emesis gravidarum. Multiparous decreased the severity of emesis gravidarum (OR= 0.14; 95% CI= 0.02 to 0.85; p= 0.034).

Table 2. Relation between parity and emesis gravidarum (chi-square)

Parity	Emesis Gravidarum		OR	95% CI		p
	Mild-moderate	Severe		Lower limit	Upper limit	
Primiparous	7	6	0.14	0.02	0.85	0.034
Multiparous	17	2				

DISCUSSION

In this study, there was a relationship between parity and severity of emesis gravidarum. Multiparous decreased the severity of emesis gravidarum. There were more multigravidas with emesis gravidrum than primigravida. This is not in accordance with the theory which stated that emesis gravidarum is more common in primigravidas than in multigravidas (Prawirohardjo, 2007).

Nausea and vomiting in pregnancy (emesis gravidarum) is the most common disorder in pregnancy, in a spectrum from mild to pathological forms of hyperemesis gravidarum. Emesis gravidarum significantly reduces the quality of life of pregnant women. It has a large economic impact on patients, caregivers, and society. But this disorder is often underestimated (Bustos et al., 2018).

This study's results are in accordance with the research conducted (Umboh et al., 2014); there was a significant relationship between parity and the incidence of hyperemesis gravidarum at the Tompaso Health Center, Minahasa Regency. In this study, most respondents with first pregnancy experienced emesis gravidarum. This is because primigravidas have not been able to adapt to hormones. Also, an older age tends to suffer more because the number of hormones released is higher. Previous pregnancy history can also affect their current pregnancy. It is hoped that the results of this study can add knowledge and insight into the relationship

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between parity and emesis gravidarum in pregnant women. Health workers can also improve health services, especially for pregnant women who experience emesis gravidarum.

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