

RELATIONSHIP OF AGE AND PARITY OF MOTHER WITH THE EVENT OF HYPEREMESIS GRAVIDARUM : LITERATURE REVIEW

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ABSTRACT

Background : Hyperemesis Gravidarum is an excessive vomiting nausea that occurs in pregnant women that occurs starting from the 6th week of pregnancy and can last until the 12th week or more. According to the World Health Organization (2015) the number of hyperemesis gravidarum incidence reaches 12.5% of the total number of pregnancies in the world.

Purpose : Studying articles that are willing to be relevant to the topic of Maternal Age and Parity Relationship with the Incidence of Hyperemesis Gravidarum and Finding new ideas / theoretical studies according to the topic of Maternal Age and Parity Relationship with the Incidence of Hyperemesis Gravidarum.

Method : In this study using the approach of literature review study by using several sources of journals or articles selected based on established criteria from google scholar database

Results : A literature review of 10 journals found that the age associated with the incidence of hyperemesis gravidarum was < 20 years old and > 35 years. Parity associated with the occurrence of hyperemesis gravidarum is primipara and grandemultipara.

Conclusion: The cause of hyperemesis is not yet known for sure. It is known that there is a relationship of age and maternal parity with the occurrence of hyperemesis gravidarum.

Keywords : Gravidarum, Hyperemesis, Maternal parity, Age

Preliminary

One of the natural stages of a woman's life cycle is pregnancy. Pregnant women need special care so that the pregnancy process runs smoothly. This is done so that the pitch hin dar of Be rbagai complications that often occur during the period to get pregnant early. Complications that often occur in pregnant women are nausea and vomiting. The incidence of nausea and vomiting that occurs excessively (> 10 times in 24 hours) and indicates a disturbance in the activity process and can harm the mother and fetus is often called hyperemission gravidarum (Manuba, 2014).

Maternal Mortality Rate (MMR) is one indicator to determine the level of success of the health care system, to determine the complications that cause increased maternal mortality and maternal morbidity until the delivery and birth process. One of the complications in question is hyperemesis gravidarum (Lisnawati, 2016).

According to the *World Health Organization* (2015) the number of cases of hyperemesis gravidarum reaches 12.5% of all pregnancies in the world. Examination visits of pregnant women in Indonesia obtained data on mothers with hyperemesis gravidarum reaching 14.8% of all pregnancies. The incidence of hyperemesis gravidarum in Indonesia is estimated at 10% of pregnant women experiencing hyperemesis gravidarum, as many as 2,203 pregnancies experiencing hyperemesis gravidarum.

The maternal mortality rate (IMR) in the province of South Kalimantan in 2007 as many as 307 deaths per 100,000 live births and still exceeds the mean nationally that as many as 228 deaths per 100,000 live births. The magnitude of the maternal mortality rate (IMR) tends to have an increasing trend from year to year. The causes of maternal death include 35% (bleeding), 28% (hyperemesis gravidarum), 12% (infection) and 25% (other causes). The main causes of maternal death due to bleeding factors are retained placenta and uterine atony which are handled too late (Depkes Prov Kal-Sel, 2013).

Hyperemesis Gravidarum is excessive nausea and vomiting that occurs throughout the day to interfere with daily work and cause dehydration (Fauziah,

2012). Hyperemesis Gravidarum is excessive nausea and vomiting that occurs in pregnant women starting from the 6th week of pregnancy and can last until the 12th week or more (Lisnawati, 2012).

Some of the factors that cause hyperemesis gravidarum include predisposing factors consisting of age, parity, occupation, education, hydatidiform mole and multiple pregnancy, organic factors such as allergies, entry of villicorial circulation, metabolic changes due to pregnancy and decreased maternal resistance, psychological factors such as stress, support husband, unpreparedness for pregnancy and others (Warsuli and Mona Suparwati and Purbowati, 2016).

Pregnancy at a young age is one of the factors that cause hyperemesis. This is related to the psychological condition of pregnant women. The literature states that mothers aged less than 20 years or more than 35 years experience hyperemesis gravidarum more often so that maternal age has a close influence on the development of reproductive organs. According to research by Ridwan A and Wahidudin (2013) stated that a healthy and safe reproductive age is the age of 20-35 years. Age less than 20 years is not a good time to get pregnant because the reproductive organs are not perfect, this certainly complicates the process of pregnancy and childbirth, while the age of more than 35 years is associated with decline and decrease in body resistance and various diseases such as hyperemesis gravidarum that often afflicts and disease is easy to enter at this age (Pudiastuti, 2012). According to the results of Muchtar's research, (2018) and Santy (2015), there is a relationship between the age factor and the incidence of hyperemesis gravidarum. This is related to the physical condition of the body's organs in accepting the presence and supporting the development of the fetus. A woman enters the age of marriage or ends a certain phase in her life, namely reproductive age.

Parity is one of the factors that contribute to the high tendency to occur hyperemesis gravidarum as a condition that results in pathology for the mother and the fetus she contains. Hyperemesis gravidarum is more common in women who have given birth once, while in women with high parity, such as mothers who have

experienced their fifth pregnancy. Hyperemesis gravidarum tends to occur in primiparous pregnant women. This is because in primiparous parity, the psychological factors of pregnant women who are still inexperienced with their pregnancy, are still adjusting to being parents with greater responsibilities so that they can trigger the occurrence of hyperemesis gravidarum (Umi Aiman, 2018). Meanwhile, for parity grandemultipara, a decrease in the function of the body's organs which causes a decrease in the body's resistance can lead to various risk factors during pregnancy. This can lead to hyperemesis gravidarum. This theory is supported by research by Ana Pujianti Harahap, et al (2018), which found that primiparous and grandemultipara parities were more likely to experience hyperemesis gravidarum, while multiparous parities tended not to experience hyperemesis gravidarum.

Based on the background of the problem above, the writer took the title of literature review "The Relationship of Age and Maternal Parity with the Incidence of Hyperemesis Gravidarum" .

Materials and Methods

The method used is literature e review. The e- review literature method is a form of research carried out through searching by reading various sources, both books, journals and other publications related to the research topic, to answer existing issues or problems (Neuman, 2011).

Source literature e used in this study traced through goog le scholar using the keyword "Relationship Age with events Hyperemesis Gravidarum" OR "relationship Parity mother with events Hyperemesis Gravidarum" OR "Relation to Age and Parity mother with events Hyperemesis Gravidarum " , " *Relationship of Age with the incidence of Hyperemesis Gravidarum*" OR "*Relationship of Maternal Parity with the incidence of Hyperemesis Gravidarum*" OR "*Relationship of Age and Mother Parity with the occurrence of Hyperemesis Gravidarum* " .

Conducted since November 2020.

Results

This research starts from the process of collecting review literature obtained based on keywords that are appropriate to the topic to be studied. The process for collecting review literature is done by sorting the number of journals or articles until they are filtered and 10 journals are obtained. This search process is carried out through an electronic based such as Google Scholar (Results Attached: Table 3).

Discussion

Based on Journal No. 1 the results of research Asrianti Safitri Muchtar (2018) concluded that the incidence of hyperemesis gravidarum in pregnant women ber relationship significantly with age ($p = 0.000$) and parity ($p = 0.000$). Journal No. 6 research by Hardiana (2019) concluded that the incidence of Hyperemesis Gravidarum in pregnant women was related to age ($p = 0.011$) and OR = 2.524 times. In addition, it is also influenced by parity ($p = 0.023$) and OR = 0.422 times. Journal No. 9 research results by Rini Sahari, et al, (2018) show that mothers who experience Hyperemesis Gravidarum are related to age ($p = 0.011$) and OR = 2.524 times. Genesis Hyperemesis Gravidarum also ber relationship with parity ($p = 0,023$) and OR = 0.422 times. The conclusion that is there is a relationship Hyperemesis Gravidarum events in pregnant women with age and parity. Results were s enada with Pudiasuti (2012) the incidence of hyperemesis gravidarum can be caused by age. Ages that are very at risk are those aged less than 20 years and more than 35 years. Age less than 20 years is caused by an immature mental and physical state. While the age of more than 35 years is because at that age there has been a decline and a decrease in body resistance and various diseases have started to come and are at risk of complications. (eg: bleeding, gestosis, or hypertension in pregnancy, dystocia and prolonged labor). In addition to maternal age, parity factors can also be the cause of hyperemia gravidarum. This is in accordance with the opinion of Razak (2010) which states that the incidence of hyperemesis gravidarum can be caused by parity

factors. This factor is also one of the tendencies to become a pathological condition for the mother and the fetus she is carrying.

Based on Journal No. 2 research results by Nelly Mariyam, et al., 2019 show that the number of respondents in the primiparous category is more, namely 25 respondents (71.4%) than the number of mothers with multipara, which is 10 respondents (28.6%). shows p value (0.067) < (0.05). This shows that there is a relationship between parity and the incidence of hyperemesis gravidarum in pregnant women, Journal no. 4 research results of Ana Pujianti Harahap, et al. 2018 that the results of this study obtained a probability/significance value (p) = 0.003 so that it can be concluded that $p < (p = 0.003 < 0.05)$ which means that there is a relationship between parity of first trimester pregnant women and the incidence of Hyperemesis Gravidarum.

Journal No. 5 The results of Umi Aiman's research (2018) concluded that parity is associated with the incidence of hyperemesis gravidarum in pregnant women ($p = 0.000 < 0.05$). This shows that there is a statistically significant relationship between parity and the incidence of hyperemesis gravidarum in pregnant women. The study also found that pregnant women with primiparous parity more often experience hyperemia gravidarum, which is 80.5% of the sample studied. Pregnant women who also often experience this event are parity grandemultipara by 40.0%. A small proportion who experienced hyperemesis gravidarum in this study were pregnant women with multiparity parity, which was 20.1%. This is because in primiparous parity, pregnant women are still less experienced with their pregnancy, still adjusting to being parents with greater responsibilities so that it can trigger the occurrence of hyperemesis gravidarum. Meanwhile, parity grandemultipara is caused by a decrease in body resistance and organ function so that it can cause various risk factors during pregnancy that can trigger hyperemesis gravidarum.

Journal No. 7 results of Nen Safitri's research (2018) that of the 32 respondents who were at high risk (age <20 years and >35 years) who experienced

hyperemesis gravidarum as many as 27 people (84.4%) were more than respondents aged at low risk (age 20). -34 years) as many as 20 people (43.5%) from 46 respondents. The results of statistical tests obtained p value = 0.001 with a value of 0.05 ($p <$), it can be concluded that there is a significant relationship between age and hyperemia gravidarum. For parity of 46 parity respondents with high risk of experiencing hyperemesis gravidarum as many as 33 people (71.7%) more than respondents with low risk parity as many as 14 people (43.8%) of 32 respondents. The results of statistical tests with chi square test obtained p value = 0.024 with a value of 0.05 ($p <$), it can be concluded that there is a significant relationship between parity and hyperemesis gravidarum. As for the work, the value of $p = 0.010$ with a value of 0.05 ($p < \alpha$), it can be concluded that there is a significant relationship between work and hyperemesis gravidarum. So in conclusion, there is a relationship between age and hyperemesis gravidarum in pregnant women, there is a parity relationship with hyperemesis gravidarum in pregnant women, there is a work relationship with hyperemesis gravidarum in pregnant women. Journal No. 8 research results Yosepina Otma Butu, et al, 2019 The test results on the Age variable are 0.032 where this value is > 0.05 , from the test results it is concluded that H_0 is not accepted, meaning that there is a significant relationship between the age of pregnant women in the 1st trimester and incidence of hyperemesis gravidarum. Furthermore, for the Parity variable, the value of Asymp. Sig > 0.05 is 0.161 so it can be concluded that H_0 is not accepted, meaning that parity and the incidence of hyperemesis gravidarum in first trimester pregnant women have a significant relationship. The work variable, the Asymp.Sig value was 0.374 (> 0.009) where H_0 was not accepted, or it could be concluded that the occupation of pregnant women in the first trimester was associated with the incidence of hyperemesis gravidarum. The results of the study concluded that the incidence of hyperemesis gravidarum was related to age, parity and occupation. Theoretically it is still unclear psychological factors with the incidence of hyperemesis gravidarum. The reasons that allow women who refuse to get pregnant or have unwanted pregnancies, they have a fear of going through pregnancy and childbirth,

besides that they are also afraid of the responsibility of carrying out their role as mothers, fear of losing their jobs, the occurrence of disharmony with their husbands and psychological factors. other factors that are thought to trigger the occurrence of hyperemesis gravidarum.

Based on Journal No. 3 research results by Rini Damayanti, et al (2020), show that 87% of pregnant women with hyperemesis gravidarum are aged 20-35 years, 47% are primiparous, 43% have basic education and 53% have jobs. The characteristics of pregnant women with hyperemesis gravidarum are: 20-35 years old, primipara, basic education and having a job. Primiparous pregnant women are at high risk of experiencing hyperemesis gravidarum. This is because in primiparous parity there is no physical or mental readiness to face pregnancy and experience in childbirth, causing fear during pregnancy (Wiknjosastro, 2007). This study is in line with the research conducted by the National Family Planning Population Agency (BKKBN) (2019) which states that Hyperemesis Gravidarum that occurs in mothers aged less than 20 years is more due to physical, mental and social functions that are still not mature enough. On the other hand, the prospective mother is still not ready to carry out her role so that it will have an impact on the physical condition of love and care and care for the child to be born. This situation causes mental conflicts that make the mother's appetite decrease. If this happens, it can cause gastric irritation which can react to motor impulses to stimulate the vomiting center through the brain nerves to the upper gastrointestinal tract and through the spinal nerves to the diaphragm and abdominal muscles which can trigger vomiting in pregnant women. Problems in terms of psychiatry and social psychology emphasize the importance of efforts to protect children to be born. Meanwhile, the incidence of hyperemesis gravidarum that occurs in mothers aged more than 35 years is more due to decreased body resistance and the functions of body organs are starting to decline. In addition, at that age naturally susceptible to disease.

Journal No. 10 research results by Fitri Muriyasari, et al, (2017) showed that the proportion of the incidence of hyperemesis gravidarum in pregnant women was

50% of the sample. These events were caused by, among others: maternal age at risk (36.8%), primipara (33.8%), gestational age 16 weeks (39.7%). Statistically it can be concluded that the incidence of hyperemesis gravidarum is related to maternal age ($p = 0.002 < 0.05$). The incidence of hyperemesis gravidarum was related to parity ($p=0.008<0.05$). The incidence of hyperemesis gravidarum was related to gestational age ($p = 0.006 < 0.05$). The conclusion of this study is that the incidence of hyperemesis gravidarum can be caused by factors of maternal age, parity and gestational age. This study is in line with the opinion of Rahmawati (2011) which states that the diagnosis of hyperemesis gravidarum is usually quite easy. These symptoms can be indicated by the category of gestational age is still young or relatively old and is also accompanied by continuous vomiting which affects the general condition. However, it must also be able to distinguish between young pregnancies accompanied by pyelonephritis, hepatitis, ventriculi ulcers and cerebral tumors which are generally accompanied by vomiting symptoms. Hyperemesis gravidarum that lasts a long time needs to be treated immediately because it can cause a shortage of food supply that affects fetal development.

Based on the above discussion, it is concluded that the characteristics of pregnant women between age and parity have a very significant relationship with the incidence of hyperemesis gravidarum because maternal age and parity greatly affect the occurrence of complications during pregnancy and childbirth. So it requires prevention and treatment as early as possible so as not to cause complications that are dangerous for the mother and the fetus. So the discussion of the results of the research " Literature Review" is the same as the theory that has been discussed previously, there is no difference between the two.

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References

- Aiman, U. (2019). The Relationship between Parity and the Incidence of Hyperemesis Gravidarum in Salatiga Hospital [Thesis]. Ungaran: Ngudi Waluyo University. [Internet]. Available at: <http://repository2.unw.ac.id/230/> . (Accessed on 16 November 2020)
- Atika, I., Putra, HK, & Thaib, SH (2016). The Relationship of Hyperemesis Gravidarum with Maternal Age, Gestational Age, Parity, and Occupation in Inpatients at Dr. RSUP. Moh. Hoesin Palembang. *Journal of Medicine and Health*. 3(3), 166-171. Available at: <https://ejournal.unsri.ac.id/index.php/jkk/article/view/5168/2794> . (Accessed on November 16, 2020)
- Butu, YO, Rottie, J., & Bataha, Y. (2019). Factors Associated with the Incidence of Hypremesis Gravidarum in First Trimester Pregnant Women. *Journal of Nursing* , 7(2). Available at: <https://ejournal.unsrat.ac.id/index.php/jkp/article/download/24476/24154> (Accessed on November 16, 2020)
- Damayanti, R., Adelia, D., Mutika, WT, & Ambariani, A. (2020). Characteristics of Pregnant Women with Hyperemesis Gravidarum in Pasar Rebo Hospital, East Jakarta: Characteristics of Pregnant Women with Hyperemesis Gravidarum in Pasar Rebo Hospital, East Jakarta. *Journal of Public Health Untika Luwuk: Public Health Journal* , 11(1), 13-18. Available at: DOI: <https://doi.org/10.51888/phj.v11i1.22> . (Accessed on November 16, 2020)
- Harahanp AP, Meliati L and Srihandayani T. 2018. The Relationship between Parity and Hyperemesis Gravidarum in the Delivery Room at the NTB Provincial Hospital. *Midwifery Journal* . 3(1) 34-36. [Internet] Available at: <http://journal.ummat.ac.id/index.php/MJ/article/view/124/98> . (Accessed on November 16, 2020)
- Hardiana, 2019. *The relationship between age and parity with the incidence of hyperemesis gravidarum in H. Abdul Manap Hospital*. Jambi : Scientia Journal.
- LPPM Sari Mulia. 2019. *Guidelines for Writing Scientific Papers*. Banjarmasin: LPPM UNISM.
- Manuaba, IGD. 2010. *Emergency department, obstetrics-gynecology and social obstetric-genecology for the midwife profession*. Jakarta: EGC
- Mariyam, N., & Budiarti, I. The Relationship of Parity with the Incidence of Hyperemesis Gravidarum in Pregnant Women at Muhammadiyah Hospital Palembang in 2018. Available at: <http://ojs.budimulia.ac.id/index.php/kebidanan/article/download/163/> (Accessed on November 16, 2019)
- Muchtar, USA. (2018). Relationship between age and parity of pregnant women with the incidence of hyperemesis gravidarum. *Journal of Scientific Health Diagnosis*, 12 (6), 598-602. Retrieved from <http://ejournal.stikesnh.ac.id/index.php/jikd/article/view/853> . (Accessed on November 16, 2020)

- Muriyasari, F., Septiani, R., & Herlina, H. (2019). Factors Associated with the Incidence of Hyperemesis Gravidarum at RSUD Muhammadiyah Metro. *Sai Wawai Metro Medical Journal*, 10(1), 49-55. Available at: ejurnal.poltekkes-tjk.ac.id . (Accessed on November 16, 2020)
- Prawirohardjo S. 2010. *Midwifery* . Jakarta : PT Bina Pustaka Sarwono.
- Ratnasari MY, Girsang BM and Natosba J. 2016. *The relationship of stress levels with the incidence of hyperemesis gravidarum in Primigravida* . Nursing Science Study Program, Faculty of Medicine, Sriwijaya University, 1–10. Available at: https://d1wqtxts1xzle7.cloudfront.net/55678540/NASKAH_PUBLIKASI_MITRA.pdf?1517382706=&response-content-disposition=inline%3B+filename%3DHUBUNGAN_TINGKAT_STRESS_DENGAN_EVENTS,2021 (Accessed on 29 March 2021) (Accessed on 29 March 2021)
- Sahari, R. (2019). The Relationship between Age and Parity with the Incidence of Hyperemesis Gravidarum in Raden Mattaher Hospital Jambi. *Family STIKES Mother Jambi*, 4 (2), 1-6. Tersedia on: <http://ojs.stikeskeluargabunda.ac.id/index.php/jurnalkebidananjambi/article/view/18> . (Accessed on November 16, 2020)
- Pudiastuti DR. 2012. *Midwifery Care for Normal and Pathological Pregnant Women*. Yogyakarta: Nuha Medika
- Puspitasari, NKA 2019. *The Relationship between Age and Degree of Preeclampsia in Pregnant Women at WANGAYA Hospital in 2019* (Doctoral dissertation, Health Polytechnic, Denpasar Ministry of Health, Department of Nursing). Sarwono Prawirohardjo Library Available at: <http://repository.poltekkes denpasar.ac.id/2461/> (Accessed on March 16, 2021)
- Putri, M. (2020). *The Relationship between Parity and the Incidence of Hyperemesis Gravidarum in Pregnant Women at Indrasari Rengat Hospital* . *Journal of Community Midwives*, 3(1), 30-35. Available at: <http://ejournal.helvetia.ac.id/index.php/jbk/article/view/4593> (Accessed on March 16, 2021)
- Suryaningrat, E. 2016. *Management of Antenatal Midwifery Care with Cases of Hyperemesis Gravidarum Level II at RSKD Mother and Child Motherland in 2016* (Doctoral dissertation, Alauddin State Islamic University Makassar). Available at: <https://repository.unej.ac.id/handle/123456789/87661> (Accessed on March 16, 2021)
- Warsuli and Mona Suparwati and Purbowati. 2016. *The Relationship of Primigravida to the Incidence of Hyperemesis Gravidarum at the Pringapus Health Center, Pringapus District, Semarang Regency in 2016* . Available at: <https://journal.fkmuntika.ac.id/index.php/phj/article/download/22/35+&cd=1&hl=id&ct=clnk&gl=id> (Accessed on March 16, 2021)
- World Health Organization. 2015. *Reduction of Maternal Mortality: a joint WHO / UNFPA / UNICEF / World Bank statement* . Available at: <https://apps.who.int/iris/handle/10665/42191> (Accessed March 16, 2021)