

The effectiveness of the application of self-hypnosis and prenatal gentle yoga on emesis gravidarum in the first-trimester pregnant women



Yasi Anggasari^{1*}, Fauziyatun Nisa¹, Ratna Ariesta Dwi Andriani¹, Yunik Windarti¹

ABSTRACT

Background: Emesis gravidarum is an inconvenience that often occurs in the first trimester of pregnancy. Continuous emission of gravidarum can be bad for the health of pregnant women and the fetus is conceived, so it must be overcome as early as possible, one of which can use non-pharmacological therapy, namely applying self-hypnosis and prenatal gentle yoga to reduce emissions of gravidarum can make pregnant women relax. This study aimed to analyze the application of self-hypnosis with Prenatal Gentle Yoga on emissions of gravidarum in first-trimester pregnant women.

Methods: The design of this study used a Quasi experimental design with a Two group pretest-posttest design without control using purposive sampling. This research was conducted on first-trimester pregnant women who experienced the emission of gravidarum in the PMB Nanik Sidoarjo of 32 pregnant women in the first trimester. The self-hypnosis was carried out every day for approximately 15-30 minutes for 1 week, while prenatal yoga was carried out 3 times a week for 30 minutes. Data collection on the intensity of nausea and vomiting used the Pregnancy Unique Quantification of Emesis and Nausea (PUQE)-24 scoring system questionnaire. Data analysis used an independent T-Test test.

Results: The results of the analysis of this study indicate that the mean difference in the Self Hypnosis treatment group is greater (1.77) than in the Prenatal Gentle Yoga group (1.25), which means that Self Hypnosis is more effective in reducing the intensity of nausea and vomiting in emesis gravidarum versus Prenatal Gentle Yoga.

Conclusion: Therapy Self Hypnosis and Prenatal Gentle Yoga can reduce the emission level of gravidarum in first-trimester pregnant women so that it can be used as an alternative therapy that is easy to apply and has minimal side effects by pregnant women who experience gravidarum emissions.

Keywords: self-hypnosis, Prenatal Yoga, Emesis.

Cite This Article: Anggasari, Y., Nisa, F., Andriani, R.A.D., Windarti, Y. 2023. The effectiveness of the application of self-hypnosis and prenatal gentle yoga on emesis gravidarum in the first-trimester pregnant women. *Bali Medical Journal* 12(2): 1222-1226. DOI: 10.15562/bmj.v12i2.4303

¹Department of Midwifery, Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya, East Java, Indonesia;

*Corresponding author:

Yasi Anggasari;
Department of Midwifery, Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya, East Java, Indonesia;
yasi@unusa.ac.id

Received: 2023-02-04

Accepted: 2023-03-28

Published: 2023-04-17

INTRODUCTION

Emesis gravidarum is a discomfort that often occurs in the first trimester of pregnancy. In the first trimester of pregnancy, as many as 75-80% of pregnant women experience feelings of nausea and vomiting, where 50% of them experience nausea and vomiting, while only 25 % experience nausea only.¹ According to the World Health Organization, at least 14% of pregnant women experience nausea and vomiting.² Nausea and vomiting usually occur in the morning because it is called morning sickness, but some arise at any time and night with a frequency of vomiting less than 5 times a day. The cause of emesis gravidarum is increased levels of estrogen, progesterone and Chorionic

Gonadotropin (HCG) hormone, increased sensitivity to odors, and psychological factors in pregnant women.³ The increase in the hormone progesterone during pregnancy causes a decrease in muscle tone in the digestive tract so that the motility of the entire digestive tract also decreases and gastric emptying takes longer. Usually, after three months, this complaint will subside and disappear by itself.⁴ Symptoms of nausea and vomiting usually occur approximately 6 weeks after the first day of the last menstrual period and last for approximately 10 weeks.

Emissions of gravidarum that occur continuously can have a significant impact on the condition of pregnant women because reduced body fluids make

the mother weak, causing the blood to become thick (hemoconcentration) and can slow down blood circulation, which means that oxygen and food consumption to the tissues is disrupted so that it can be dangerous. Maternal health and the development of the fetus it contains.⁵ The most common adverse effects on the fetus due to severe vomiting are premature birth and low birth weight (BBLR).⁶ Emesis gravidarum that is not handled properly can cause hyperemesis gravidarum, which is characterized by dehydration, electrolyte disturbances, or nutrient deficiency, with vomiting scales reaching up to 10 times for 24 hours. This can be bad for the health of pregnant women and the fetus being conceived.⁷ Therefore, emission

gravidarum in pregnant women must be overcome with the best treatment.

Self-hypnosis is one of the non-pharmacological actions used to treat emesis gravidarum, where a person can be in a relaxed and focused condition to achieve certain goals, such as reducing nausea, pain, stress, panic, and reducing weight.⁸ Self-hypnosis can be done during pregnancy, with this method, pregnant women who experience nausea and vomiting can get deep relaxation, both physically, breathlessly and psychologically, thereby reducing the discomfort of pregnancy experienced by the mother. This is supported by a study conducted by Widiastini et al. in 2019, stating that self-hypnosis can reduce gravidarum emissions in pregnant women in the 1st trimester⁹. The same thing was also reported by Nur Djanah in 2015, that there was a significant difference in the decrease between nausea scores, retching and vomiting after doing self-hypnosis.¹⁰ In addition to self-hypnosis, prenatal gentle yoga is another non-pharmacological therapy that can reduce emissions of gravidarum. Yoga during pregnancy is useful for improving the body as a whole, blood circulation, digestion, and increasing concentration and peace of mind.¹¹ Musfirowati (2017) conducted a study on the effectiveness of yoga breathing against discomfort in first-trimester pregnant women by doing yoga breathing twice a day. Most of the respondents (66.7%) felt comfortable and reduced nausea and vomiting.¹²

The development of health sciences has contributed to the emergence of various methods for handling gravidarum emissions. Self-hypnosis and prenatal gentle yoga can make pregnant women relax, and another advantage is that it is easier to do and can reduce medical costs. This study aimed to analyze the application of self-hypnosis with Prenatal Gentle Yoga on emissions gravidarum in first-trimester pregnant women.

MATERIALS AND METHODS

Materials

This study was conducted on the first trimester pregnant women. who experienced emission of gravidarum in the PMB Nanik Sidoarjo 32 pregnant women

in the first trimester. The independent variables were Self-hypnosis and prenatal gentle yoga, and the dependent variable was nausea and vomiting in the first trimester of pregnant women. The research question was How is the effectiveness of the application of self-hypnosis with Prenatal Gentle Yoga on emissions gravidarum in first-trimester pregnant women?

Data collection procedures

The design of this study used a Quasy experimental design with a Two group pretest-posttest design without control. Respondents were taken using a purposive sampling technique by determining the inclusion criteria, namely: the subject is a 12-week pregnant woman who experiences nausea and vomiting, is willing to follow a series of therapies given by signing the informed consent of the study, has no complications and a history of recurrent bleeding/miscarriage in a previous pregnancy, the subject not taking anti-emetics.

The data collection method used in this study refers to previous research¹³ with slight modifications. In brief, the stages of data collection are as follows treatment group. Self-hypnosis was carried out every day for approximately 15-30 minutes for 1 week. The first meeting with the respondents measured the intensity of nausea and vomiting (pretest). Self-hypnosis procedures start from setting initial relaxation, relaxation of the eyes, neck and hands, deepening, programming and ending. At the same time, the application of prenatal yoga is doing for 3 times a week for 30 minutes. Researchers will accompany respondents 2 times a week to do prenatal yoga and self-hypnosis exercises. Respondents were given prenatal yoga and self-hypnosis practice procedures. After the last meeting, respondents measured the intensity of nausea and vomiting (post-test). Data collection on the intensity of nausea and vomiting used the Pregnancy Unique Quantification of Emesis and Nausea (PUQE)-24 scoring system questionnaire. The demographic data questionnaire contains 5 questions: age, education, occupation, gestational age, and gravida status of the respondent. PUQE24 is a scoring system to measure the severity of

nausea and vomiting during pregnancy in 24 hours. The PUQE score for each patient was calculated using three criteria to assess the severity of nausea and vomiting during pregnancy (number of hours of feeling nauseated, number of episodes of vomiting, and number of episodes of dry vomiting in the last 24 hours).¹⁴ The PUQE score is calculated by adding up the values of each criterion and can range from a minimum of 1 to a maximum of 15.

Research Ethics

The research procedure has received a letter from the ethics committee of the University of Nahdlatul Ulama Surabaya with a letter of decision Number: 222/EC/KEPK/ UNUSA/2022

Data analysis

The analysis used in this study was to determine the effectiveness of changes in the intensity of nausea and vomiting in pregnant women in the first trimester before and after the intervention using an independent T-Test. All data obtained will be processed using the SPSS program.

RESULTS

Based on the table below, it can be seen that of the 16 respondents who experienced nausea and vomiting before being given Self Hypnosis treatment, almost all (93.7%) were in the moderate category and after being given Self Hypnosis treatment. Hypnosis was almost entirely in the category of not vomiting (87.5%).

Based on the table below shows that of the 16 respondents who experienced nausea and vomiting before doing Prenatal Gentle Yoga, almost entirely (87.5%) were in the moderate category and after doing Prenatal Gentle Yoga, most (62.5%) were in the mild category.

Based on the table below shows the mean results there is a difference in the average intensity of nausea and vomiting pre and post-application of Self Hypnosis, with the mean result of pre-application of Self Hypnosis 2.9 decreased to mean 1.13 on the results of post application of Self Hypnosis and p-value <0.05 which means the application of Self Hypnosis affects the intensity of nausea vomiting in emesis gravidarum.

Table 1. Distribution of Nausea Vomiting Intensity Pre and Post Test Self Hypnosis Treatment on Emesis Gravidarum in PMB Nanik Cholid Region.

No	Category	Intensity of Nausea of Vomiting Pre-Self Hypnosis	%	Intensity of Nausea Vomiting Post-Self Hypnosis	%
1	No vomiting	0	0	14	87.5
2	Mild	1	6.3	2	12.5
3	Moderate	15	93.7	0	0
4	Severe	0	0	0	0
	Total	16	100	16	100

Source: Primary Data, 2022

Table 2. Distribution of Nausea and Vomiting Intensity Pre and Post Prenatal Gentle Yoga Test on Emesis Gravidarum in PMB Nanik Cholid Region.

No.	Category	Nausea Vomiting Pre-Prenatal Gentle Yoga	%	Intensity of Nausea Vomiting Post-Prenatal Gentle Yoga	%
1	No vomiting	0	0	6	37,5
2	Mild	2	12.5	10	62.5
3	Moderate	14	87.5	0	0
4	Severe	0	0	0	0
	Total	16	100	16	100

Source: Primary Data, 2022

Table 3. The Effectiveness of Self-Hypnosis Application on the Intensity of Nausea Vomiting in Emesis Gravidarum in PMB Nanik Cholid.

Measurement	N	Mean	T p-value of	Sig. (2-tailed)
pre-Self hypnosis	16	2,9	13,175	,000
post- Self-hypnosis	16	1,13	47,000	

Source: Primary Data, 2022

Table 4. The Effectiveness of the Application of Prenatal Gentle Yoga on the Intensity of Nausea and Vomiting in Emesis Gravidarum in PMB Nanik Cholid.

Measurement	N	Mean	T p-value of	Sig. (2-tailed)
pre prenatal gentle yoga	16	2,88	33,669	,000
post-prenatal Gentle Yoga	16	1,63	13,000	

Source: Primary Data 2022

The table above shows that the difference in the average intensity of nausea and vomiting pre and post-natal Gentle Yoga implementation with the mean of 2.88 decreased to a mean 1.63 p-values <0.05, which means prenatal Gentle Yoga application affects the intensity of nausea and vomiting in emesis gravidarum.

The table above shows that there is a mean difference between the Self Hypnosis treatment and Prenatal Gentle Yoga where the mean difference in the Self Hypnosis treatment group was greater (1.77) than in the Prenatal Gentle Yoga group (1.25), which showed more decreased intensity of nausea and vomiting in the Self Hypnosis group, which means Self Hypnosis is more effective in reducing the intensity of nausea

and vomiting in emesis gravidarum than Prenatal Gentle Yoga

DISCUSSION

Self-hypnosis is one way that can be used to treat nausea and vomiting in pregnant women. Almost all respondents who experienced nausea and vomiting before being given Self Hypnosis treatment (93.7%) were in the moderate category, and after being given p Self Hypnosis treatment was almost entirely in the category of not vomiting (87.5%). From Table 3 above, using the Two-Sample T-Test test, it can be seen that the p-value is <0.05, which means that self-hypnosis affects the intensity of nausea and vomiting. Judging from the mean results, there is an average

difference in the intensity of nausea and vomiting of pre and post-self hypnosis, with the mean result of pre-self hypnosis at 2.9 decreasing to a mean of 1.13 on the results of post-self hypnosis. This is in line with the research conducted by Widiastini in 2019 about the effect of applying self-hypnosis on emissions of gravidarum in first-trimester pregnant women with the results of applying self-hypnosis to reduce complaints of gravidarum in first-trimester pregnant women⁹. This is also supported by Burmanajaya's research that hypnotherapy can reduce gravidarum emissions.^{14,15} Seyda reported in 2022 that adjunctive use of hypnotherapy with patients diagnosed with hyperemesis gravidarum experienced significantly reduced severity of nausea and frequency of vomiting compared to treatment-as-usual alone.¹⁶ In principle, hypnosis is one part of the Human mind control system, namely the ability to control the human mind to control the subconscious mind so that it can control the flow of brain waves, namely by opening the alpha waves of the human brain either as self-hypnosis or applied to clients, both patients for medical and non-medical practitioners. Self-hypnosis will show maximum results if done daily or at least 3-4 a week for 15-30 minutes.¹⁷

In the group that did Prenatal Gentle Yoga, 16 respondents who experienced

Table 5. Effectiveness of Self Hypnosis and Prenatal Gentle Yoga on Intensity of Nausea Vomiting in Emesis Gravidarum in PMB Nanik Cholid Area.

Measurement	N	Mean	Std.Deviation	T	df	Sig. (2- tailed)	Mean Difference
Post Self Hypnosis	16	1,13	342	13,175	15	,000	1,77
Post-Prenatal Gentle Yoga	16	1,63	,500	13,000	15	,000	1,25

Source: Primary Data 2022

nausea and vomiting before doing Prenatal Gentle Yoga, almost entirely (87,5%) are in the moderate category and after doing Prenatal Gentle Yoga, most (62,5%) are in the mild category, then after testing using the One Sample T-Test it can be seen that the p-value is $0.00 < 0.05$, which means that doing Prenatal Gentle Yoga can affect the intensity of gravidarum. Judging from the mean results, there is a difference in the average emission intensity of gravidarum pre and post Prenatal Gentle Yoga. The mean result of pre-Prenatal Gentle Yoga was 2.88, decreased to a mean of 1.63 on the result of post-Prenatal Gentle Yoga. This is in line with the research conducted by Musfirowati in 2017 entitled The effectiveness of yogic breathing to the comfort level of first-trimester pregnant mothers, where after doing yoga breathing twice a day, most of the respondents felt comfortable and felt less nausea and vomiting¹². Heryani reported in 2018 that routine prenatal yoga could be a non-pharmacological treatment solution to overcome gravidarum emissions.¹⁸

After further research on the effectiveness of the application of self-hypnosis and Prenatal Gentle Yoga on the intensity of nausea and vomiting in emesis gravidarum, it was found that there was a mean difference between self-hypnosis and prenatal gentle yoga where the mean difference before and after treatment group self-hypnosis was greater (1.77) than in the prenatal gentle yoga group (1.25) which showed a greater decrease in the intensity of nausea and vomiting in the self-hypnosis, which means that self-hypnosis was more effective in reducing the intensity of nausea and vomiting in emesis gravidarum compared to Prenatal gentle yoga. The results of a study also support this research, Trivena in 2018 regarding the Differences in the Effect of Hypnotherapy and Vitamin B6 on Reducing the Intensity of Nausea and Vomiting in Severe Emesis Gravidarum.

The dependent variable is decreased intensity of nausea and vomiting. Independent variables are hypnotherapy and vitamin B6. The method used in this study is a quasi-experimental design with a posttest-only design with a control group. Hypnotherapy is more effective than vitamin B6 in overcoming nausea and vomiting in pregnant women with emesis gravidarum.¹⁹

The results of the above test indicate that doing prenatal yoga can affect the hypothalamus to suppress CRH secretion, which will affect the anterior lobe pituitary gland to suppress the release of the hormone ACTH so that the production of adrenal hormones and cortisol decreases and orders the anterior lobe pituitary gland to secrete endorphins. Yoga will inhibit the increase in sympathetic nerves so that the number of hormones that cause body dysregulation can be reduced. The parasympathetic nervous system gives a signal to affect the release of catecholamines. As a result, there is a decrease in heart rate, breathing rhythm, blood pressure, muscle tension, metabolic rate and the production of hormones that cause anxiety or stress.²⁰ However, self-hypnosis has a greater effect on decreasing the intensity of nausea and vomiting in mothers with emesis gravidarum. This follows Pieter's theory in 2012 regarding the factors that cause emesis gravidarum, one of which is the psychological influence of the mother, especially in emotional changes. This change will affect the mother's mood, namely increased mother's concern about unattractive physical appearance and feeling easily tired, decreased appetite resulting in nausea and vomiting.²¹ Treatment self-hypnosis that the researcher did gave positive suggestions in overcoming mental problems, namely stating that pregnancy is the most beautiful thing that God has given to a woman and the physical changes she experiences are natural so that the feelings

and behavior of mothers who experience emesis gravidarum getting better and cause the intensity of maternal nausea and vomiting greatly decreased. The SELF method can also be applied in dealing with nausea and vomiting. SELF can reduce the activation of the hypothalamus-pituitary axis and reduce cortisol 26 product, increase parasympathetic responses, and inhibit control of the limbic system of the central nervous system so that it affects increasing relaxation and emotional abilities and improving tension.²²

According to the researcher's assumption, this is influenced by the mother's psyche, especially in emotional changes. This change will affect the mother's mood, namely the mother's increased concern about an unattractive physical appearance and so on, feeling easily tired, and decreasing appetite so that nausea and vomiting occur in the mother. Therefore, by instilling positive suggestions for mothers by saying that pregnancy is the most beautiful gift given by God and what is experienced by mothers is a natural thing so that mothers can feel safe and comfortable, which can reduce nausea and vomiting so that self-hypnosis is more effective in overcoming nausea vomiting in emesis gravidarum.

CONCLUSION

Giving self-hypnosis therapy and gentle prenatal yoga can significantly reduce the intensity of nausea and vomiting in pregnant women in the first trimester. Therapy self-hypnosis and prenatal gentle yoga can be used as a non-pharmacological therapy that is safe, effective, can be done alone at home and has minimal side effects, So it is recommended that pregnant women who experience Emesis gravidarum can use self-hypnosis and Prenatal Gentle Yoga as an alternative or complementary therapy to reduce Emesis Gravidarum.

ACKNOWLEDGMENT

The authors would like to thank the University of Nahdlatul Ulama Surabaya, which has helped a lot during this research

ETHICAL APPROVAL

The research procedure has received a letter from the ethics committee of the University of Nahdlatul Ulama Surabaya with a letter of decision Number: 222/EC/KEPK/ UNUSA/2022

FUNDING

None.

AUTHOR CONTRIBUTION

All authors contributed equally to writing this manuscript.

CONFLICT OF INTEREST

The authors declare no conflict of interest in this study.

REFERENCES

- Setiawan E. Panduan Terapi Aman Selama Kehamilan. Surabaya: PT. ISFI PENERBITAN; 2012.
- JM M. Maternal mortality. *Current Op*. 2012.
- Manuaba IB. Ilmu Kebidanan. Jakarta: Buku Kedokteran EGC; 2012.
- Yuliani D. Buku Ajar Aplikasi asuhan Kehamilan Ter-update. Jakarta Timur: CV Trans Info Media; 2017.
- Rofi'ah, Siti, Esti Handayani TR. Efektivitas konsumsi jahe dan sereh dalam mengatasi. *J Ilm Bidan* [Internet]. 2017;II(2):57–63. Available from: <https://media.neliti.com/media/publications/227230-efektivitas-konsumsi-jahe-dan-sereh-dala-dd69afa7.pdf>
- Nurulicha, & Aisyah S. Pengaruh Pemberian Inhalasi Lemon Terhadap Pengurangan Mual Muntah Pada Ibu Hamil Trimester I Di PMB Lestari Cileungsi Kabupaten Bogor Tahun 2019. *J Kesehat INDRA HUSADA*. 2020;8(1):157–165.
- Retni A, Handayani F, Mohamad ISW. Literature Review: Pemberian Aromaterapi Essential Oil Lavender Terhadap Emesis Gravidarum Pada Kehamilan Trimester Pertama. *J Borneo Holist Heal*. 2020;3(2).
- Andriana E. Melahirkan Tanpa Rasa Sakit. Jakarta: PT. Bhuana Ilmu Populer; 2014.
- Widiastini LP, Karuniadi I. Pengaruh Penerapan Self-Hypnosis Terhadap Emesis Gravidarum Pada Ibu Hamil Trimester I. *J Ilm Ilmu Kesehat Wawasan Kesehat*. 2019;6(1):15.
- N Djanah AK. Self Hipnosis terhadap mual muntah kehamilan trimester I. *J Kesehat Ibu Dan Anak*. 2015;7(1).
- Aprilia Y. Prenatal Gentle Yoga. Jakarta: Gramedia Pustaka Utama; 2020.
- Musfirowati F, Fahrudin A, Nursanti I. The effectiveness of yogic breathing to comfort level of first trimester pregnant mothers at community health center of Kragilan district working area, Serang, Banten, Indonesia. *Int J Res Med Sci*. 2017;6(1):51.
- Salafas E, Anisa; R, Rusita; VI. EFEKTIVITAS HYPNO-EFT DAN PERNAFASAN YOGA DALAM MENURUNKAN KECEMASAN IBU HAMIL PENDAHULUAN Kecemasan merupakan perasaan khawatir yang tidak jelas yang berkaitan dengan perasaan tidak pasti dan tidak Berdaya, dan keadaan emosi ini tidak memiliki objek y. 2016;7(2):84–94.
- Nurdiana Ani, Betty Mangkuji RL. EFEKTIFITAS PEMBERIAN PERMEN JAHE TERHADAP MUAL MUNTAH PADA IBU HAMIL DI KLINIK KHAIRUNIDA SUNGGAL TAHUN 2018. *Colostrum J Kebidanan*. 2019;1(1).
- Burmanajaya B, Agustina A. Hipnoterapi dapat Mengurangi Derajat Emesis pada Ibu Hamil Trimester Pertama. *J Ilmu Keperawatan Jiwa*. 2020;3(1):33.
- Seyda Efsun Ozgunay, Burcu Dincgez, Derya Karasu, Gulten Ozgen, Ibrahim Taymur, Sermin Eminoglu et IC. Adjuvant Hypnotherapy for Hyperemesis Gravidarum: A Randomized Pilot Study. *Int J Clin Exp Hypn*. 2022;1–9.
- Deekshitulu B. Stress and Hypnosis. 2017. 73–75 p.
- Heryani H, Prenatal Y, Emesis M. Heni Heryani: Yoga Prenatal Mengurangi Emesis Gravidarum. 2019;6:20–4.
- Kaban TA. Efektifitas Hipnotrapi dan Pemberian Tablet B6 Terhadap Intensitas Mual muntah pada Emesis Grafidarum di Wilayah Kerja Puskesmas Namu Ukur Tahun 2018. *Skripsi*. 2018. 1–76 p.
- Maharani S, Hayati F. Pengaruh Prenatal Gentle Yoga Terhadap Tingkat Kecemasan Ibu Hamil Menghadapi Persalinan. *J Endur*. 2020;5(1):161.
- Pieter, Herri Zan dan Lubis NL. Pengantar Psikologi dalam Keperawatan. Jakarta: Kencana; 2012.
- Hidayat A, Emilia O, Dewi FST, Sumarni. Spiritual emotional freedom technique (Seft) improved autonomic nervous activity in Primipara. *Bali Med J*. 2021;10(1):361–5.



This work is licensed under a Creative Commons Attribution