EFFECTIVENESS OF SLOW DEEP BREATHING THERAPY AGAINST EMESIS GRAVIDARUM

Ineke Permatasari[1(CA)]
Email:Inekepermatasari1005@gmail.com *(Corresponding Author)*
[1]Program Studi D III Kebidanan Sekolah Tinggi Ilmu Kesehatan Rustida Banyuwangi
Lutfi Nuraini[2]
[2]Program Studi D III Kebidanan Sekolah Tinggi Ilmu Kesehatan Rustida Banyuwangi

ABSTRACT

Emesis gravidarum is a normal symptom experienced by most pregnant women. This condition is common in early pregnancy, especially in the first week to the third month of pregnancy. The aim of this research is to find out how effective slow deep breathing therapy is for pregnant women with emesis gravidarum, quantitative research using experimental methods, using a quasi research design. experiment with a One Group Pretest-Posttest Design research design, the population in this study were all pregnant women in the Independent Practice Midwives in the Glenmore Region in 2023, totaling 30 respondents, with a classification of respondents based on age who experienced emesis gravidarum, most of whom were 25-33 years old, namely 19 respondents (63.30), most of whom had completed high school, namely 20 respondents (66.70%), most of whom worked as housewives, namely 24 respondents (80.00%). Frequency distribution of levels of nausea and vomiting before implementing slow deep breathing therapy at BPM Puspitarini, A.Md. Keb Glenmore Banyuwangi, namely 16 (53.30%) respondents with mild nausea and vomiting criteria and 14 (46.70%) respondents with nausea criteria moderate vomiting.The pre-test and post-test showed a significant relationship with p value = 0 <0.05 N = 30 It can be concluded that there is an effect of applying slow deep breathing therapy (independent) on pregnant women with emesis gravidarum.

Keywords: Slow Deep Breathing, Emesis Gravidarum, Pregnancy

INTRODUCTION

Nausea, vomiting is a normal sympto, especially in the first week to the third month of pregnancy. According to the World Health Organization (WHO, 2019), the prevalence rate of emesis gravidarum is 12.5% of all pregnancies in the world, with varying incidence rates, starting from 0.3% in Sweden, 0.5% in Canada, 10.8 % in China, 0.9% in Norway, 2.2% in Pakistan, and 1.9% in Turkey (Retni et al., 2020).

According to the Ministry of Health (2019), the incidence of emesis gravidarum in Indonesia during 2019 from 2,203 maternal pregnancies, it was found that around 543 pregnant women were detected with emesis gravidarum, in the early period of pregnancy. So it can be estimated that the average incidence of emesis gravidarum cases in 2019 was 67.9%. Where, 60-80% of emesis gravidarum occurs in primigravida pregnant women, and 40-60% of the incidence of emesis gravidarum occurs in multigravida pregnant women.

Data on pregnant women in East Java during 2020 shows that 94% of pregnant women who experienced moderate to severe nausea and vomiting in the first trimester, 13% could progress to hyperemesis gravidarum (East Java Health Profile, 2020). Nausea and vomiting during pregnancy are usually caused by adaptations in the endocrine system that occur during pregnancy, mainly caused by increased fluctuations in HCG (Chorionic Gonadotropin Hormone) levels, especially in the gestational period, the most common being the first 12-16 weeks of age, because at that time the HCG hormone reached its highest level (Bahrah, 2022).

There are 2 methods of treatment that can be used in cases of emesis gravidarum, namely pharmacological and non-pharmacological techniques. A non-pharmacological treatment technique that can be used as evidence-based therapy for emesis gravidarum in midwifery practice is the slow deep breathing technique (WHO, 2016).

Slow Deep Breathing provides a calm or relaxed response and increases endorphin hormones, so that it can increase the work of the parasympathetic nerves in the digestive system, reduce the work of the abdominal vagus nerve and reduce the work of the CTZ (Chemoreceptor Trigger Zone), thereby reducing feelings of nausea (vomiting) and vomiting (nauseous) in pregnant women (Findri Fadlika, 2019).

According to research conducted by Ms. Pallavi and Mrs. Bharti Weljale in 2020 with the title "Effectiveness of deep breathing exercise on Nausea, Vomiting among Primigravida antenatal with Emesis gravidarum admitted at Antenatal ward of Prava Rural Hospital, Loni (Bk)" with the aim of assessing the effectiveness of deep breathing exercises on nausea and vomiting in pregnant women Primigravida with emesis gravidarum in antenatal mothers with experimental and control groups. Using descriptive analysis methods and inferential statistics. The sample size of 60 primigravida emesis gravidarum antenatal mothers was selected with assistance. The success rate of deep breathing techniques to reduce around 64.43% of a sample of 60 mothers

suffering from emesis gravidarum. (Palavi, 2020).

To find out how effective Slow Deep Breathing Therapy is for Pregnant Women with Emesis Gravidarum at the Independent Practicing Midwife Puspitarini, A.Md. Keb, Glenmore District in 2023. The hypothesis in this study is that there is a difference in the status of emesis gravidarum after and before administering slow deep breathing therapy at BPM Puspitarini, A.Md.Keb Glenmore District in 2023.

METHODS

This research is quantitative research that uses experimental methods with a quasi-experimental research design with a One Group Pretest-Posttest research design. The total population in this study was 96 respondents. The sampling technique that used by researchers was non-random sampling with a purposive sampling method, amount of 30 respondents. The research location is Independent Practice Midwife, Puspitarini A.Md. Keb, in Glenmore District, 2023. The research was being worked on July 14 to August 12, 2023.

The instruments in this research were questionnaire sheets and observation sheets. The questionnaire sheet consists of questions using the Pregnancy-Unique Quantification Of Emesis And Nausea (PUQE) nausea and vomiting scale measuring technique. The instrument items can be said to be valid if the Product Moment coefficient (rxy) or rcount value is greater than rtable according to the predetermined significance level, namely $\alpha=0.05$, with a Cronbach's Alpha value > 0.6. The

experiment was approved by Health Research Ethics Committee of Institute Of Health Science Banyuwangi (reference number: 133/03/KEPK-STIKESBWI/VIII/2023)

RESULTS

Table 1. Classification of Respondents Based on Last Education (n=30)

Education	Frequency	Percentage
Primary	2	6,70
Middle School	5	16,70
High School	20	66,70
Bachelor's degree	3	10
Total	30	100

Based on table 1, the majority of pregnant women at BPM Puspitarini have completed high school education, namely 20 respondents (66.70%).

Table 2. Classification of Respondents Based on Work at BPM Puspitarini, A.Md. Keb, Glenmore District

Job	Frequency	Percentage
Housewife	24	80,0
Teachers	2	6,70
Private Employees	4	13,30
Total	30	100

Based on table 2, the majority of pregnant women at BPM Puspitarini work as housewives, namely 24 respondents (80.00%)

Table 3. Characteristics of Respondents Before being given Slow Deep Breathing Therapy.

Nausea Vomiting	Frequency (f)	Percentage (%)

Light	16	53,30
Medium	14	46,70
Weight	0	0
Total	30	100

Based on table 3 above, it shows that the majority of pregnant women at BPM Puspitarini, A.Md. Keb Glenmore, Banyuwangi Regency before being given slow deep breathing therapy had a mild level of nausea and vomiting, namely 16 respondents (53.30%). Meanwhile, those who had moderate levels of nausea and vomiting were 14 respondents (46.70%).

Table 4. Characteristics of Respondents After Being Given Slow Deep Breathing Therapy

Nausea Vomiting	Frequency (f)	Percentage (%)
Light	30	100,0
Medium	0	0,00
Weight	0	0
Total	30	100

Based on table 4 above, it shows that after being given slow deep breathing therapy, the majority of respondents had mild nausea and vomiting, namely 30 (100%).

Table 5. Cross tabulation of the effectiveness of slow deep breathing therapy in pregnant women with emesis gravidarum at BPM Puspitarini, A.Md. Keb, Glenmore District.

Criteria	Frequency and Percentage				p
	Pre	%	Post	%	
Light	16	53,3	30	30	<0.000
Medium	14	46,7	0	0	<.0001
Weight	0	0	0	0	<0.000
Total	30	100	30	100	<0.000

P value	0	N	30	0.000

Based on table 5 above, it shows that before slow deep breathing therapy was carried out, 16 respondents (53.30%) had a mild level of nausea and vomiting. Meanwhile, those who had moderate levels of nausea and vomiting were 14 respondents (46.70%). Then, after being given slow deep breathing therapy, the majority of respondents had mild nausea and vomiting, namely 30 (100%). The pre-test and post-test showed a significant relationship with the criteria for nausea and vomiting in pregnant women with a p value = 0.000, <0.05 N = 30, so it can be concluded that there is a significant effect of effectiveness between slow deep breathing therapy on nausea and vomiting in pregnant women. BPM Puspitarini, A.Md. Keb Glenmore District.

DISCUSSION

Classification of Pregnant Women

Classification of Respondents Based on Age. Most of the pregnant women at BPM Puspitarini were aged 25-33 years, namely 19 respondents (63.30%).

According to Rochjati (2016) risk factors in pregnancy are young Primi and old Primi. Young primi are pregnant women aged less than 16 years, the mother's uterus and pelvis often have not yet grown to adult size. As a result, there is doubt about the safety and health of the fetus in the womb. Apart from that, the mother is not mentally mature enough so her self-care skills and those of her baby are doubtful. Dangers that can occur include babies born under term,

bleeding during pregnancy, and postpartum bleeding. Meanwhile, Primi Tua is pregnant women aged more than 35 years, at that age it is easy for diseases to occur in the mother and the uterine organs age. The birth canal also becomes stiffer. There is a greater chance that pregnant women will have a disabled child, obstructed labor and bleeding. Dangers that can occur include high blood pressure, preeclampsia, PROM, and others. The productive age for gestation is 20-35 years.

According to the researcher, after looking at the results of data analysis on the classification of respondents based on age at BPM Puspitarini, A.Md.Keb. Data on pregnant women does not have a high risk in their pregnancy. Because most pregnant women are of productive age, namely 17-33 years. Where at that age pregnant women still have normal reproductive organs and even the mental readiness of pregnant women at that age is quite mature.

Last education

Classification of respondents based on their latest education, the majority of pregnant women at BPM Puspitarini had a high school education, namely 20 respondents (66.70%). Meanwhile, the minority of pregnant women at BPM Puspitarini had a Bachelor's degree (S1), namely 3 respondents (10%), 2 respondents (6.70%) had an elementary school education, and 5 respondents had a secondary school education (16.70%).

According to Kuntjoroningrat quoted by Nursalam and Pariani (2013), the higher a person's education, the easier it is to receive information so that the more knowledge they have. It can be concluded that recent education greatly influences a person's mindset in overcoming problems because the higher the level of education we have, the more insight and knowledge we have, including in terms of overcoming problems during pregnancy that we may experience.

Work

Classification of respondents based on occupation, the majority of pregnant women at BPM Puspitarini work as housewives, namely 24 respondents (80.00%). Meanwhile, the minority of pregnant women's work as teachers is 2 respondents (6.70%), the work of pregnant women as private employees is 4 respondents (13.30%).

Currently women have equal opportunities in education so that many women have a good education. This is because each person is different in terms of having the motivation to develop themselves. There are still many pregnant women who do not have the motivation to work, especially during pregnancy.

Slow Deep Breathing provides a calm or relaxed response and increases endorphin hormones, so that it can increase the work of the parasympathetic nerves in the digestive system, reduce the work of the abdominal vagus nerve and reduce the work of the CTZ (Chemoreceptor Trigger Zone), thereby reducing feelings of nausea (vomiting) and vomiting (nauseae) in pregnant women

Effectiveness

The non-pharmacological deep breathing relaxation technique aimed at treating nausea and vomiting in pregnant women is carried out every time you feel nauseous with a duration of more than 60 seconds for all pregnant women at Puspitarini Independent Practice Midwife, A.Md. Keb, Glenmore District, July 14, 2023 to 12 August 2023. Slow deep breathing therapy had a mild level of nausea and vomiting, namely 16 respondents (53.30%). Meanwhile, those who had moderate levels of nausea and vomiting were 14 respondents (46.70%). Then, after being given slow deep breathing therapy, the majority of respondents had mild nausea and vomiting, namely 30 (100%). The pre-test and post-test showed a significant relationship with the criteria for nausea and vomiting in pregnant women with a p value = 0.000, <0.05 n = 30, so it can be concluded that there is a significant effect of effectiveness between slow deep breathing therapy on nausea and vomiting in pregnant women.

The results of this research are in line with research conducted by Ms.Pallavi and Mrs.Bharti Weljale in 2020. The results revealed that a significant percentage of this study group showed that antenatal emesis primigravida mothers had a lower mean score (19.33 ± 3.688) namely 64.43% of the total score indicates moderate levels of nausea and vomiting while in the control group the average score is (23.46 ± 2.62) namely 78.2% of the total score indicates severe levels of nausea and vomiting. Paired 't' test was calculated and the value is 5.14 which is higher than the table value, indicating a statically significant difference. Findings revealed that there was a significant relationship found between Nausea and vomiting and Demographic variables such as Age, Type of diet and Mother's weight at the 0.05 level because there was a significant relationship between the variables and the null hypothesis stated H2 was accepted.

CONCLUSIONS

Slow deep breathing therapy has been proven to be effective in reducing the criteria for nausea and vomiting in pregnant women with emesis gravidarum. Before it was given, most respondents had mild to moderate levels of nausea and vomiting, whereas after being given slow deep breathing therapy, all respondents had the criteria for mild nausea and vomiting. It is said to be effective if there is a better change and the criteria for nausea and vomiting are one level lighter. It can be seen from the research data that there are significant differences in the criteria for nausea and vomiting and have been proven to help reduce the frequency of nausea and vomiting experienced by pregnant women.

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It is hoped that future researchers can conduct research by adding other variables so that research on the effectiveness of slow deep breathing therapy in pregnant women with emesis gravidarum is more varied.

REFERENCES

Atiqoh, R. (2020) Kupas Tuntas Hiperemesis Gravidarum (Mual Muntah Berlebihan Dalam Kehamilan).Jakarta: One Peach Media.

Bambang Tri Margono & Rendy Singgih. (2021). Implementasi Penatalaksanaan Hiperemesis Gravidarum Pada Wanita Hamil Dengan Keterbatasan Sumber Daya. Jurnal Biologi, Fakultas Sains dan Teknologi, UIN Alauddin Makasar Diakses: *http://journal.uin-alauddin.ac.id/index.php/psb*

Budijanto, D. Sutarjo, U. S, Kurniawan, R & Kurniasih, N dkk (2018). Profil Kesehatan Indonesia. Jakarta: Kementrian Kesehatan Republik indonesia.

Carolon, dkk . (2020). Ketidaknyamanan dalam kehamilan. Jakarta: Trans Info Media

Chowdhury, S, Dkk. Universal health coverage-Three is more to it than meets the eye. journal od Family Medicine and Primary Care. 6 (2), 169-170. *https://doi.org/10.4103/jfmpc.jfmpc*.

Cholifah & Chakraborty, P.pratim. (2017). Universal health coverage-There is more to it than meets the eye. Journal of Family Medicine and Primary Care, 6 (@), 169-170. *https://doi.org/10.413/jfmpc.jfmpc*

Manuaba, (2016). Memahami Kesehatan Reproduksi Wanita. Jakarta: Arcan.

Ernawati, Dkk. (2022). Ketidaknyamanan Dan Komplikasi Yang Sering Terjadi Selama Kehamilan.

Malang: CV. Rena Cipta Mandiri.

Ekawati, Dkk. (2022). Hubungan Stress dengan Derajat Morning Sicknesss pada Ibu Hamil Trimester 1 dan 2. Jurnal Media Komunikasi Ilmu Kesehatan , Vol 14 (3), 2023.

Hanifa. (2020). Ilmu Kebidanan. Jakarta: Yayasan Bina Pustaka Sarwono Prawirodiharjo

Irianto Koes. (2015). Biologi Reproduks. Bandung: Algabeta

Kemenkes, (2019). Profil Dinas Kesehatan Kemenkes Tahun 2019. Jakarata: s.n.

Kemenkes. (2018). Profil Dinas Kesehatan Kemenkes Tahun 2018. Jawa Timur: s.n.

Kundarti, F.l., Rahayu, D.E& Utami R. (2017). Efektivitas Pemberian Serbuk Jahe (zingiber Officinale Terhadap Tingkat Mual Muntah Pada Ibu Hamil. Jurnal Imu Kesehatan. Volume 4 (1), 18. *https://doi.org/10.373111/jhsj.v12.2489*

Kartikasari, R. I. (2018). Derajat Kecemasan Ibu Hamil Dengan Kejadian Mual Muntah Pada Trimester 1. 2 (2), 69-47.

Ms.Palavi Sahane and Mrs. Bharti. (2020). Effectiveness oof deep breathing exercise on Nausea, Vomiting among Primigravida antenatal with Hyperemesis gravidarum admitted at Antenatal ward of Pravara Rural Hospital, Loni (BK), International Journal of Advancesnin Nursing Management, Vol.8 (4), 300-304.

Notoatmodjo Soekidjo. (2018). Metodologi Penelitian

Kesehatan. Jakarta: PT Rineka Cipta.

Nur Ismi Wahyuni. (2020). Hubungan Pengetahuan Ibu Tentang Hiperemesis Gravidarum Pada Trimester Awal. Jurnal Antara Kebidanan, Vol 3 (3), 2020.

Patonah, S., S, D. A., & S, L. M. (2021). Gambaran Kejadian Morning sickness Pada Ibu Hamil Primigravida di Wilayah Kerja Puskesmas Temayang Kabupaten Bojonegoro Tahun 2020. Asuhan Kesehatan.Vol 12 (2), 24-27.

Prawirohardjo S. (2014). Ilmu kebidanan edisi keempat. Jakarta. PT Bina Pustaka.

Rahayu, P. D. (2015). Pemberian Latihan Slow Deep Breathing Terhadap Ibu Hamil dengan Mual Muntah Di Ruang Tulip Rumah Sakit Dr. Moewardi Surakarta

Rahmawati N, Kartika I, Meliyana E. (2018). Gambaran perilaku ibu hamil berdasarkan karakteristik ibu dalam mengatasi emesis gravidarum di bpm bidan a kecamatan warung kondang kabupaten cianjur tahun 2018. Jakarta: PT sehat masada.

Rini Damayanti. (2020). Karakteristik Ibu Hamil Denngan Hiperemesis Gravidarum . Jurnal Kesmas Untika Luwuk: Public Health Journal, Vol 11 (1), Juli 2020. Diakses: *https://journal.fkm.untika.ac.id /index.php/phj*

Royal College of Obstetricians and Gynaecologists.(2016). The Management of Nausea and Vomiting of Pregnancy and Hyperemesis Gravidarum: 1-27.

Rukiyah, A. (2016). Asuhan Kebidanan I Kehamilan. Jakarta: EGC.

Sari Marlynda Happy Nurmalita, Dkk. (2022). Metodologi Penelitian Kebidanan. Padang: PT Global Eksekutif Teknologi.

Siti Rofiah, dkk. (2020). Emesis Gravidarum. Yogyakarta: Putaka Panasea

Umamah, F. (2018). Konsumsi Makanan Kecil Di Pagi Hari Mempengaruhi Morning Sickness Pada Ibu Hamil Trimester Pertama Di Wilayah Kerja BPS Ida Ayu Desa Becirongengor Sidoarjo. Journal of Health Sciences, 7(1).*https://doi.org/10.33086/j hs.v7i1.258*

Yuliani, dkk. (2017). Buku Ajar Aplikasi Asuhan Kehamilan Ter-Update. Disertai Program Pemerintah Berkaitan Dengan Antenatal Care. Jakarta: Trans Info Media

Yuliani Diki Retno, Dkk. (2021). Asuhan Kehamilan. Medan: Yayasan Kita Menulis.

Yanti Damai. (2017). Konsep Dasar Asuhan Kehamilan. Bandung: PT Refika Aditama.

Saifuddin AB dkk. Buku Panduan Praktis Pelayanan Kesehatan Maternal dan Neonatal. Jakarta: PT Bina Pustaka