



## THE EFFECTIVENESS OF EDUCATIONAL VIDEO "SAHABAT IBU HAMIL" ON SELF EFFICACY OF PREGNANT WOMEN TO OVERCOME EMESIS GRAVIDARUM

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### Abstract

**Introduction:** Emesis gravidarum (nausea and vomiting) are the most common discomforts in the first trimester of pregnancy and affect 70% of pregnant women. Some pregnant women (46.7%) have negative behavior to overcome emesis gravidarum, which means they have not been able to overcome the emesis that occurs to them. Untreated emesis gravidarum will progress to hyperemesis gravidarum which can endanger maternal health and fetal development. One of the most important things in person's healthy behavior is self-efficacy. Self-efficacy can be formed through verbal persuasion to convince individuals that they are capable of achieving certain results. The video "sahabat ibu hamil" is an educational media for pregnant women that applies the principles of verbal persuasion in an effort to strengthen the confidence of pregnant women to be able to implement healthy behavior to overcome emesis gravidarum.

**Objectives:** Analyzing the effectiveness of the video "Sahabat Ibu Hamil" on the self-efficacy of pregnant women to overcome emesis gravidarum.

**Method:** This research used Pretest-Posttest Control Group Design. The research was carried out in the working areas of the Sukajadi, Pasirkaliki and Sukarasa Community Health Centers and the Practice of Independent Midwives in Bandung City. The population in the study were all pregnant women in Bandung City. The sample was 37 pregnant women in accordance with the inclusion criteria, both in the intervention group and the control group. Sample size formula in this research used numerical categorical unpaired. The data obtained was primary data from a questionnaire assessment regarding self-efficacy to overcome emesis (nausea/vomiting). The Wilcoxon test was used to analyzed the difference in scores before and after the intervention group. Paired t-test was used to analyzed differences in scores before and after education in the control group. The Mann Whitney test was used to analyzed the differences in scores between the two group

**Result:** The results of the study showed that there was a significant differences in the self-efficacy of pregnant women to overcome nausea and vomiting before and after providing education in both the intervention and control groups. The video "Sahabat Ibu Hamil" is effective in increasing the self-efficacy of pregnant women to overcome emesis (nausea/vomiting), this can be seen as an increase in self-efficacy in the intervention group which is higher compared to the control group.

**Conclusion:** The video "Sahabat Ibu Hamil" can be used as an alternative educational media of health promotion for pregnant women to overcome emesis gravidarum (nausea/vomiting).

**Keywords:** educational video "sahabat ibu hamil", self efficacy, pregnant women, emesis gravidarum

### INTRODUCTION

Pregnancy is a natural and normal process in a woman's life during the reproductive period. Pregnancy is a normal process that there are many physiological and psychological

changes in pregnant women. The changes that occur can cause disturbances and obstacles in pregnancy which are usually called discomfort. Discomfort during pregnancy is a feeling that is lacking or unpleasant for the physical or mental condition of pregnant women(1). This discomfort can include nausea, vomiting, vaginal discharge, dizziness, hemorrhoids, constipation, shortness of breath, varices, nocturia, dependent edema, leg cramps which are divided into the first, second and third trimesters of pregnancy (2)

Nausea and vomiting or what is commonly called emesis gravidarum are common symptoms of pregnancy that affect 70% of pregnant women. Emesis gravidarum starts from 4-8 weeks of age and lasts up to 16-20 weeks, sometimes the symptoms persist throughout pregnancy. Emesis gravidarum is considered a physiological symptom during pregnancy so that the impact it may have is ignored by her and her family (3)

Emesis gravidarum causes a decrease in appetite so that there is a change in electrolyte balance with potassium, calcium and sodium which causes changes in the body's metabolism. Emesis gravidarum will get worse and become hyperemesis gravidarum which causes the mother to vomit continuously every time she drinks or eats, as a result the mother's body becomes weaker, paler, and the frequency of urination decreases drastically so that body fluids decrease and the blood becomes thick (hemoconcentration) thereby slowing blood circulation that are oxygen and tissue, which can cause tissue damage which can endanger the health of the mother and the development of the fetus she is carrying (4)

The results of research Irianti et al, explained that in the first trimester of pregnancy the discomfort that most often occurred was nausea and vomiting as much as 83.3%, and most of the respondents who felt discomfort in the first trimester preferred not to have their discomfort checked and waited for it to disappear (5)Based on research results, it was found that 40% of pregnant women had sufficient knowledge about the discomforts of pregnancy, and 46.7% still had a negative attitude to overcome the discomfort they felt.(6) This condition can be influenced by the level of education, personal experience or from other people who are considered important. Based on other research it was found that there were still 43.3% of pregnant women who had a negative attitude to overcome the discomfort of the first trimester of pregnancy. (7) The other research said that 46.7% of pregnant women had negative behavior to overcome emesis gravidarum (nausea and vomiting), which means that there are still pregnant women who have not been able to overcome the emesis that occurs to them.(8)

One of the ways self-efficacy can be formed is through verbal persuasion Verbal persuasion is an attempt to convince an individual that he is capable of achieving certain results. Verbal persuasion, one of which is through health counseling or education, can strengthen confidence in being able to implement healthy behavior in daily life and prevent and avoid risky behavior(9) Health education media such as videos can be used as a tool in providing health education. The use of video media in providing health education is considered very appropriate for conveying messages(10)

The educational media currently used by pregnant women is the KIA book. In this research, we developed educational media in the form of a video entitled "Sahabat Ibu Hamil" which aims to increase the self-efficacy of pregnant women to overcome emesis (nausea/vomiting).

## **METHODS**

The research design used is Pretest-Posttest Control Group Design. The subjects in this study were pregnant women in the first trimester who had emesis gravidarum. The total sample used was 37 people. Sample size formula in this research used numerical categorical unpaired(11) Inclusion criteria were unemployee, gestational age  $\leq 20$  mg, mild nausea and vomiting if the PUQE sqore is  $\leq 6$ , moderate nausea and vomiting if the PUQE sqore is 7 – 12, planned pregnancy and willing to be a become a respondent. Samples that had complications during pregnancy and hyperemesis gravidarum were exclusion criteria. The sampling technique used simple random sampling.

The research was carried out at the Sukajadi Health Center, Sukarasa Health Center and Pasirkaliki Health Center in Bandung City. These were data collection steps :

1. Screening primigravida mothers with a gestational age of  $\leq 20$  mg using PUQE scoring instrument to measure how severe nausea and or vomiting has been. Respondents included were those who had PUQE score  $\leq 6$  and PUQE score of 7-12, whose had mild to moderate nausea and vomiting(12)
2. After obtaining a sample according to the inclusion criteria, then divide the respondents into 2 groups
3. Conduct a pre-test regarding the efficacy of treating nausea and vomiting in the intervention and control groups using a questionnaire on Google Form
4. The intervention group was given an educational video "Sahabat Ibu Hamil" after completing the pre-test via the YouTube link
5. The intervention group watched the educational video 2 times within 2 week research period and were controlled via WhatsApp to watch the video
6. The control group was given education through the KIA book
7. Conduct a post test on both groups after the 2 week research period on the intervention and control groups using a questionnaire in Google Form
8. Data analysis used 1) univariable analysis by describing each variable studied. 2) bivariable analysis to analyzed the influence of the independent and dependent variables.

The first step is to test the normality of the efficacy data for each group with the Shapiro Wilk test. For data that is normally distributed with p value  $> 0.005$  , the Paired t-test and the Unpaired t-test are used. If the data is not normally distributed, then the Wilcoxon and Mann-Whitney tests are used. The results of the normality test in the intervention group showed that the data was not normally distributed, so the Wilcoxon test was used to analyzed the differences scores before and after education in the intervention group. The results of the normality test in the control group showed that the data was normally distributed, so the paired t-test was used to analyzed the differences in scores before and after in the control group. The normality test between intervention dan control group showed that the data was not normally distributed, so the Mann Whitney test was used to analyzed the differences in scores between the two groups(13)

This research has received ethical approval from the Bandung Ministry of Health Polytechnic Health Research Ethics Committee with No.77/KEPK/EC/VI/2021

## RESULTS AND DISCUSSION

After processing the data, the following results were obtained:

### 1. Respondent Characteristics

The following table showed the frequency distribution of respondent characteristics

**Tabel 4.1**  
Frequency Distribution of Respondent Characteristics

Characteristic	Intervention group		Control group	
	F	%	F	%
<b>Age</b>				
<20 tahun	0	0	1	2,7
20-35	33	89,2	28	75,7
>35	4	10,8	8	21,6
Total	37	100	37	100
<b>Education</b>				
Elementary	1	2,7	3	8,1
Junior High School	4	10,8	15	40,5
Senior High School	24	64,9	18	48,6
University	8	21,6	1	2,7

Characteristic	Intervention group		Control group	
	F	%	F	%
Total	37	100	37	100
<b>Pregnancy Status</b>				
Primigravida	20	54,1	20	54,1
Multigravida	17	45,9	17	45,9
Total	37	100	37	100
<b>PUQE Score</b>				
Mild	17	45,9	17	45,9
Moderate	20	54,1	20	54,1
Total	37	100	37	100

Uji statistic deskriptif

Table 1.1 showed that the majority of pregnant women's ages were between 20-35 years in the intervention group (89.2%) and the control group (75.7%). The majority of last education was at high school level in the intervention group (64.9%) and control group (48.6%). The majority of pregnancy status was primigravida in the intervention group (54.1%) and the control group (54.1%).

Based on a questionnaire all respondents in this study were unemployed with gestational age  $\leq 20$  mg and planned pregnancy. PUQE score result showed that respondents had mild to moderate nausea and vomiting. Most primigravidas are not able to adapt to the hormones estrogen and human chorionic gonadotropin, so emesis gravidarum occurs more often. Meanwhile, multigravidas and grandemultigravidas are able to adapt to the hormones estrogen and human chorionic gonadotropin because they already have experience with pregnancy and childbirth (14)

Primigravidas show that lack of knowledge, information and poor communication between women and their caregivers also influence women's perceptions of the symptoms of nausea and vomiting. Meanwhile, multigravidas and grandemultigravidas already have experience, information and knowledge about the symptoms of emesis gravidarum so they are able to overcome the symptoms(15)However, other research shows that the parity factor has a weak influence on emesis gravidarum experienced by pregnant women in the first trimester. Parity/number of children has no influence on the emergence of emesis gravidarum because pregnant women assume that whatever the number of children at this time, if the mother is ready to face her pregnancy, nausea and vomiting will occur. can be resolved (16)

This age is adulthood and a healthy reproductive period. As a person ages, there will be changes in physical and psychological (mental) aspects. As age increases, more information and experience will be gained. The older you are, the more mature a person's level of maturity and strength will be in thinking, working and processing their emotions (17)

## 2. Differences Self Efficacy in Intervension Group To Overcame Emesis (Nausea/Vomiting)

The following table showed the difference self-efficacy before and after being given educational video "Sahabat Ibu Hamil"

Tabel 4.2  
Differences in Self-Efficacy in the Intervention Group (Video)

Self Efficacy	n	Median (minimum-maksimum)	Rerata $\pm$ s.b	p
Before being given education using video	37	74 (63-93)	74 $\pm$ 6,8	0,000
After being given education using video	37	78 (69-100)	80 $\pm$ 7,7	

Uji statistik: *Wilcoxon*

Table 4.2 above showed that the result of statistical test used Wilcoxon has a value of  $p=0.000$ , it means that at alpha 5% there is a significant difference in mean self-efficacy before and after being given educational video to overcome emesis. The difference in mean self-efficacy before and after being given education using the emesis educational video was an increase of 6%.

Based on these results, that pregnant women can increase their self-efficacy to overcome emesis after receiving education. The previous study by Lucya said that the health education video had an effect on increasing self-efficacy in preventing transmission of tuberculosis(18).

### 3. Differences in Self-Efficacy in Control Group To Overcome Emesis(Nausea and Vomiting)

The following table showed the differences in self-efficacy before and after education using the KIA book

Table 4.3  
Differences in Self-Efficacy in the Control Group (KIA book)

Self Efficacy	n	Rerata±s.b	Perbedaan Rerata±s.b	IK 95%	p
Before being given education using KIA book	37	71,7± 8,3	1,81±2,13	1,10-2,52	0,000
After being given education using KIA book	37	74 ±8,5			

Uji Statistik: *Pair T-test*

Table 4.3 above showed that the result of statistical test used Pair T test has a value of  $p=0.000$ , it means that at alpha 5% there is a significant differences in mean of self-efficacy before and after being given education using the KIA book. The differences in mean self-efficacy before and after being given education using the KIA book was an increase of 1,8%

There was an increase in the average self-efficacy in this group due to receiving education. Based on these results, that pregnant women can increase their self-efficacy to overcome emesis after receiving education. In accordance with the statement Sarafino et.al, said that the most important thing that an individual must have to be able to carry out healthy behavior is self-efficacy(19)

### 4.The effectiveness of the video "Sahabat Ibu Hamil" on the Self-Efficacy of Pregnant Women in Overcoming Emesis (Nausea/Vomiting)

The following table showed the differences in self-efficacy between the intervention group and the control group.

Table 4.4  
Differences in Self-Efficacy in the Intervention Group and Control Group

Efikasi Diri	n	Median (minimum-maksimum)	Rerata ±s.b	p
Intervensi (Education using Video "Sahabat Ibu Hamil")	37	5 (3-13)	6±2,9	0,000
Control (Educatuin using KIA book)	37	1 ((-3)-5)	1,8±2,2	

Uji Statistik: *Mann Whitney*

Table 4.4 above showed that the result of statistical test value used Mann Whitney has a value  $p=0.000$ , it means that at alpha 5% there is a significant difference in the average self-efficacy of pregnant women between the intervention group and the control group. The mean self-efficacy in the intervention group increased 6%, while the mean self-efficacy in the control group increased 1.8%.

Based on these results, it showed that the increase of self efficacy in the intervention group using video was higher than the control group using the KIA book. This result in accordance with Downs JS research which said that self-efficacy increases through providing video intervention.(20) Likewise, result of research Ratnasari et al. said that AViRSex (Aid Video for Reproduction and Sexuality) can increase sexual and reproductive

health self-efficacy scores in adolescents aged 12 - 14.(21) Other research that has the same results is Alma Feriyanti said there is an influence of the video lecture method on increasing knowledge, self-efficacy and attitudes towards the dangers of smoking in students and research. (22)Audiovisual learning media has a better influence than text-based (printed) media. (23)

One of the ways self-efficacy can be formed is through verbal persuasion Verbal persuasion is an effort to convince an individual that he or she is capable of achieving certain results. Verbal persuasion, one of which is through counseling, can strengthen confidence in being able to implement healthy behavior in daily life and prevent and avoid risky behavior. (9)Health education media such as videos can be used as a tool in providing health education. Edgar's theory states that information received from audiovisual media such as watching films, seeing demonstrations, seeing live events will be able to be absorbed by 50%, while information received through media in text form can be absorbed by only 10%. (24)

In this research, we developed educational media in the form of videos that provide imaginative experiences through models .The advantage of using videos in providing education that is videos has audio element and visual element, which will make it more concrete, so can get more learning experiences. Dale, with the cone of experience, explained that human knowledge is first formed through capturing concrete objects by the senses, then abstracted by reason. This educational video is more effective because this media can be heard and seen to present information in a form that is fun, interesting, easy to understand and clear (25)

The video "Sahabat Ibu Hamil" in this research depicts the film's experience of a mother who has nausea and vomiting until she can overcome it. The description in the video provides the experience that other people who have conditions similar to her. The video illustrated a pregnant woman who has emesis with unhealthy behavior, which can make it worse. The video also illustrated that she can does healthy behavior and overcome the emesis. In this video explained the physiology of pregnancy, the causes of nausea and vomiting, its impact, how to overcome it and the danger sign due to emesis. The individual imaginative experiences illustrated are modeling experiences that are very valuable and can strengthen and convince pregnant women to overcome emesis. Meanwhile, the KIA book only explained a little information about emesis and there was no examples of imaginative experiences about emesis and how to overcome it.

## CONCLUSION

The educational video "Sahabat Ibu Hamil" is effective on the self-efficacy of pregnant women to overcome emesis gravidarum.

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