



HEALTH PROMOTION BREAKS THROUGH VIDEOS FOR PREGNANT MOTHERS FOR ANEMIA PREVENTION DURING THE COVID-19 PANDEMIC AT THE HEALTH CENTER FOR THE SOUTH PADANG REGION

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ABSTRACT

Background: The epidemic that spread at the end of 2019 was known as Coronavirus Disease 2019 (Covid-19) caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-Cov-2). This situation had an impact on the wider community, especially pregnant women as a vulnerable group who must get extra attention in the midst of the current pandemic. Anemia in pregnant women ranks third highest in the world with a prevalence of 74%. Anemia is the main factor causing bleeding which is the number 1 cause of maternal death in Indonesia. This happens because of the lack of supervision and examination during pregnancy.

Methods: The design of this study was quasi-experimental, with a population of pregnant women with anemia in the South Padang Health Center area. Samples were pregnant women obtained from sample calculations and met the inclusion criteria. Inclusion criteria were among mothers who took Fe tablets, whose gestational age was 12-24 weeks, the provision of HB levels < 11.0 g/l. First do a pre-test and Hb test before doing the intervention.

Results: From the characteristics of respondents, most of them are >20 years old, which is 73.7%, more than half of the respondents are working, namely 57.9% and more than half of the income is from the minimum wage. From the description of HB levels, it shows that the average HB level in the first measurement is 9.8 with a standard deviation of 1.1. The lowest HB level was 6.7 and the highest was 11. The average HB level in the second measurement was 9.9 with a standard deviation of 0.9. The lowest HB level is 8.0 and the highest is 11. The average HB level in the third measurement is 10.9 with a standard deviation of 0.5. The lowest HB level in the third measurement is 9.8 and the highest is 12. The average HB level in the fourth measurement is 11.0 with a standard deviation of 0.5. The lowest HB level in the fourth measurement was 9.8 and the highest was 12. The average score of knowledge before being given was 6.3, while after being given the intervention it was 9.2. There is an increase in the average knowledge score of 2.9. The results of the Wilcoxon test obtained a p value of 0.000, which means that there is a difference in the average score of knowledge before and after the intervention was given. The average attitude score before being given the intervention was 5.7, while that given after the intervention was 8.2. There is an increase in the average attitude score of 2.89. The results of the Wilcoxon test obtained a p value of 0.000, which means that there is a difference in the average attitude score before and after the intervention was given. The average score of adherence before the intervention was given was 4.6, while it was given after the intervention was 5.9. There is an increase in the average compliance score of 1.29. The results of the Wilcoxon test obtained a p value of 0.000, which means that there is a difference in the average score of compliance before and after the intervention was given.

Key Point ; Anemia; Pregnant mother; Covid 19 Pandemic: Health Promotion: Audiovisual Media

INTRODUCTION

The outbreak that spread at the end of 2019 was known as Coronavirus Disease 2019 (Covid-19) caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-Cov-2). The Covid-19 pandemic is not only endemic in Indonesia but throughout the world with such a rapid spread, so that the President of the Republic of Indonesia declared an emergency response status for public health by establishing Large-Scale Social Restrictions (PSBB), one of which is regarding the need for health services¹. This situation has an impact on the wider community, especially pregnant women as a vulnerable group who must receive extra attention in the midst of the current pandemic². Anemia in pregnant women ranks third highest in the world with a prevalence of 74%. Anemia is the main factor causing bleeding which is the number 1 cause of maternal death in Indonesia³. This happens because of the lack of supervision and examination during pregnancy. Anemia also causes a decrease in the body's immune system so that mothers are susceptible to infection, including Covid-19¹.

Before the Covid-19 pandemic occurred, Padang was the capital city of West Sumatra Province which contributed quite a lot to the number of anemia in pregnant women. In 2010 the Seberang Padang Health Center had the highest prevalence of pregnant women with anemia³. The government's efforts to reduce the incidence of anemia in pregnancy are carried out by implementing the Integrated Antenatal Service Program which includes health promotion services, examination of HB levels and administration of Fe⁴ tablets. During this pandemic, based on an initial survey at the South Padang Regional Health Center, many health service programs did not run well. As well as the anxiety of pregnant women resulting in a lack of visits to health services for pregnancy checks, while the function of pregnancy checks reduces the risk of anemia.

Efforts to run health promotion services during the pandemic can be done by home visits, one of which is providing direct counseling and using audiovisual media in the form of health promotion videos that attract the attention of the

target so that the message can be conveyed. Several previous research results show that health promotion using video has a fairly good impact, one of which is a significant increase in knowledge⁴. Many studies show good results regarding health promotion videos but not during a pandemic. Based on the explanation above, the researcher wants to prove that Health Promotion using video can prevent anemia in pregnant women during the Covid-19 pandemic.

Methods

The design of this study was a quasi-experimental, with a population of all pregnant women with anemia in the South Padang Health Center area. Samples were pregnant women obtained from sample calculations and met the inclusion criteria. Inclusion criteria included mothers who took Fe tablets, whose gestational age was 12-24 weeks, the stipulation of Hb levels < 11.0 g/l. First do a pre-test and Hb test before doing the intervention.

RESULT

A. Characteristics of Respondents

Table 1. Characteristics of Respondents

Karakteristik	Jumlah	Persentase
Umur		
< 20 tahun	10	26,3
≥ 20 tahun	28	73,7
Pekerjaan		
Tidak Bekerja	16	42,1
Bekerja	22	57,9
Pendapatan		
< UMR	20	52,6
≥ UMR	18	47,4
Total	38	100,0

The table above shows that most of the respondents are 20 years old, which is 73.7%, more than half of the respondents are working as much as 57.9%, and more than half of the income is less than the minimum wage.

B. Overview of HB Levels

Table 2. Average HB Levels in Pregnant Women

Kadar HB	Mean	SD	Min	Max
Pengukuran 1	9,829	1,1275	6,7	11,0
Pengukuran 2	9,971	0,9847	8,0	11
Pengukuran 3	10,945	0,5012	9,8	12
Pengukuran 4	11,013	0,5590	9,8	12

The table above shows that the average HB level in the first measurement is 9.8 with a standard deviation of 1.1. The lowest HB level was 6.7 and the highest was 11. The average HB level in the second measurement was 9.9 with a standard deviation of 0.9. The lowest HB level was 8.0 and the highest was 11. The average HB level in the third measurement was 10.9 with a standard deviation of 0.5. The lowest HB level in the third measurement is 9.8 and the highest is 12. The average HB level in the fourth measurement is 11.0 with a standard deviation of 0.5. The lowest HB level in the fourth measurement is 9.8 and the highest is 12.

C. Overview of Knowledge, Attitude and Compliance

Table 3. Average Knowledge, Attitude and Compliance Scores Before and After Intervention

Variabel	Mean	SD	Min	Max
Pengetahuan				
Pre test	6,34	2,441	3	12
Post test	9,24	3,234	2	13
Sikap				
Pre test	5,37	2,223	2	10
Post test	8,26	1,996	2	10
Kepatuhan				
Pre test	4,68	1,297	3	7
Post test	5,97	1,262	3	8

The table above shows that the average knowledge score before the intervention was 6.3 with a standard deviation of 2.4. The lowest score of knowledge before the intervention was 3 and the highest score was 12. The average score of knowledge after the intervention was 9.2 with a standard deviation of 3.2. The lowest score of knowledge after the intervention was 2 and the highest score was 13. The average attitude score before the intervention was 5.3 with a standard deviation of 2.2. The lowest score of attitude before intervention was 2 and the highest score

was 10. The average score of attitude after intervention was 8.2 with a standard deviation of 1.9. The lowest score of attitude after intervention was 2 and the highest score was 10.

The average score of adherence before the intervention was 4.6 with a standard deviation of 1.2. The lowest score of adherence before the intervention was 3 and the highest score was 7. The average score of adherence after the intervention was 5.9 with a standard deviation of 1.2. The lowest score of adherence after the intervention was 3 and the highest score was 8.

In addition, the variables of knowledge, attitude and compliance are also presented in categorical form. Knowledge is categorized into poor and good, attitudes are categorized into negative and positive, and compliance is categorized as disobedient and obedient, as shown in the table below.

Table 3. Distribution of Knowledge, Attitude and Compliance Frequency Before and After Intervention

Variabel	Intervensi			
	Sebelum		Setelah	
	n	%	n	%
Pengetahuan				
Kurang Baik	31	81,6	17	44,7
Baik	7	18,4	21	55,3
Sikap				
Negatif	19	50,0	15	39,5
Positif	19	50,0	23	60,5
Kepatuhan				
Tidak Patuh	18	47,4	12	31,6
Patuh	20	52,6	26	68,4
Total	38	100,0	38	100,0

The table above shows that knowledge is good before being given an intervention as much as 18.4%, while after being given an intervention it becomes 55.3%. The positive attitude before being given the intervention was 50%, while after being given the intervention it became 60.5%. Compliance with the obedient category, before the intervention was given as much as 52.6%, while after being given the intervention it became 68.4%.

D. Effect of Health Counseling on HB levels

Table 4. Effect of Health Counseling on HB levels

Variabel	Mean	SD	Z	P Value
Pengukuran 1				
Kadar HB				
Pre test	9,829	2,441	-2,442	0,015
Post test	9,971	0,9847		
Pengukuran 2				
Kadar HB				
Pre test	9,971	0,9847	-5,070	0,000
Post test	10,945	0,5012		
Pengukuran 3				
Kadar HB				
Pre test	10,945	0,5012	-2,414	0,016
Post test	11,013	0,5590		

Note:

Measurement 1: Counseling Without using video

Measurement 2: Counseling Using Video

Measurement 3: 1 Week After Counseling Using Video

The table above shows that the first measurement is counseling without using video. Before the intervention was given an average of 9,829, while after the intervention was 9,971. There was an average increase in HB levels of 0.142. The results of the Wilcoxon test obtained a p value of 0.015, which means that there is a difference in the average HB levels before and after the intervention.

The second measurement is counseling using video. Before the intervention was given, the average was 9.971, while after the intervention it was 10.945. There was an average increase in HB levels of 0.974. The results of the Wilcoxon test obtained a p value of 0.000, which means that there is a difference in the average HB levels before and after the intervention.

In the third measurement, measurements were taken after 1 week of counseling using video. Before the intervention was given, the average was 10.945, while after the intervention it was 11.013. There was an increase in the average HB level of 0.068. The results of the Wilcoxon test obtained a p value of 0.016, which means that there is a difference in the average HB levels before and after the intervention.

E. The Effect of Health Counseling on Knowledge, Attitude and Compliance

Table 5. Effect of Health Counseling on Knowledge, Attitude and Compliance

Variabel	Mean	SD	Z	P Value
Pengetahuan				
Pre test	6,34	2,441	-4,087	0,000
Post test	9,24	3,234		
Sikap				
Pre test	5,37	2,223	-4,451	0,000
Post test	8,26	1,996		
Kepatuhan				
Pre test	4,68	1,297	-3,612	0,000
Post test	5,97	1,262		

The table above shows that the average score of knowledge before being given an intervention was 6.3, while after being given an intervention it was 9.2. There is an increase in the average knowledge score of 2.9. The results of the Wilcoxon test obtained a p value of 0.000, which means that there is a difference in the average score of knowledge before and after the intervention was given. The average attitude score before being given the intervention was 5.7, while after being given the intervention it was 8.2. There is an increase in the average attitude score of 2.89. The results of the Wilcoxon test obtained a p value of 0.000, which means that there is a difference in the average attitude score before and after the intervention was given.

The average score of adherence before the intervention was given was 4.6, while after being given the intervention it was 5.9. There is an increase in the average compliance score of 1.29. The results of the Wilcoxon test obtained a p value of 0.000, which means that there is a difference in the average score of compliance before and after the intervention was given.

F. Binary Logistic Regression Factors Affecting HB Levels in Pregnant Women

Table 6. Binary Logistic Regression Factors Affecting HB Levels in Pregnant Women

Variabel	B	Pvalue	OR	95% C.I.for EXP(B)	
				Lower	Upper
Umur(1)	-0,766	0,443	0,465	0,066	3,285
Pekerjaan(1)	-0,274	0,787	0,760	0,104	5,561
Pendapatan(1)	2,408	0,003	11,111	2,233	55,286
Pengetahuan(1)	0,734	0,508	2,083	0,237	18,275
Sikap(1)	0,509	0,609	1,664	0,237	11,707
Kepatuhan(1)	-0,083	0,928	0,920	0,151	5,614
Constant	-1,790	0,180	0,167		

The table above shows the results of the binary logistic regression test which shows that the factor associated with HB levels in pregnant women is income. Obtained p value 0.003. OR (95% CI) = 11.1 (2.2-55.2), which means that pregnant women who have income less than the minimum wage are 11 times more likely to be anemic than pregnant women whose income is more than the minimum wage.

CONCLUSION

So by providing direct counseling accompanied by videos, it can increase HB in pregnant women.

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