

# Video-Based Health Education For Pregnant Women On Knowledge Of The Hazards Of Cigarette Exposure In Pregnancy At Kandangan Puskesmas

Nurullita Widyazizah\*, Reny Mareta Sari

Insitut Ilmu Kesehatan STRADA Indonesia, Kediri, Indonesia

\*Corresponding author: [nwidyazizah@gmail.com](mailto:nwidyazizah@gmail.com)

## ABSTRACT

Exposure to cigarette smoke in pregnant women can lead to risks in pregnancy. The effects of exposure to cigarette smoke in pregnant women are very dangerous because 75% of cigarette smoke will be inhaled by pregnant women and can affect the fetus in the womb, such as premature babies, babies born with low weight. LBW), babies born with defects. The purpose of this study was to examine the effect of health education with videos on the knowledge of pregnant women about the dangers of exposure to cigarette smoke in pregnancy. Method The research design used is quantitative with a quasi-experimental research design with a sampling technique that is accidental sampling. The sample used was part of the population of pregnant women from trimester 1 to trimester 3 who did a pregnancy check (ANC) at the Kandangan Health Center, Kediri Regency and obtained as many as 64 respondents. This data collection tool uses a questionnaire. Data analysis using Wilcoxon test. The results of this study obtained  $0.000 < 0.05$  there are the effect of video-based health education on pregnant women on knowledge of the dangers of exposure to cigarette smoke in pregnancy. The results of the pre-test knowledge of pregnant women were 92.1% had less knowledge and after being given the intervention, it was found that 57.9% had sufficient knowledge. It is concluded that the knowledge of pregnant women about the dangers of exposure to cigarette smoke is still inadequate. This happens because the information obtained by pregnant women is still lacking. It is important to provide information to the public, especially pregnant women about the dangers of cigarette smoke.

**Keywords :** Cigarette exposure, Health Educaation, Knowledge, Pregnant Woman

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## INTRODUCTION

According to the results of surveys in Indonesia such as the Basic Health Research and the Global Youth Tobacco Survey, the problem of cigarette consumption in the community is quite large. The prevalence of smoking continues to increase in both men and women. The prevalence of smoking quadrupled from 1.3% in 2001 to 5.2% in 2007. According to Basic Health Research data, the average number of cigarettes smoked per day per Indonesian is 12.3 cigarettes (equivalent to 1 wrap). While the proportion of smoking every day in men is more than in women, namely 47.5% compared to 1.1%. Around 225,700 people in Indonesia died from smoking or other tobacco-related diseases (WHO, 2020). Even Bappenas estimates that if there is no immediate intervention, the number of smokers in Indonesia by 2030 could reach 16% of the total population of Indonesia. Data from the World Health Organization (WHO) in 2008 showed that Indonesia was ranked third with the largest number of smokers in the world after China and India where smoking has a major influence

in damaging health. According to WHO, smoking is the cause of various diseases in active and passive smokers (WHO, 2015).

Pregnancy is a natural and physiological process that must be maintained as well as possible by paying attention to various factors that can influence it, one of which is by distancing yourself from exposure to cigarette smoke, both as active smokers and passive smokers (Haerani, Ningsih, 2020). There are still many family members who smoke in the house, indicating that the public's understanding of the dangers of cigarette smoke is still low for other people around them, especially pregnant women. Pregnant women, husbands, and families need to be aware that exposure to cigarette smoke is very dangerous for the health of the unborn baby.

There are still many people smoking inside the building, indicating that the public's understanding of the dangers of cigarette smoke is still low, especially for pregnant women. Pregnant women, husbands, and families need to be aware that exposure to cigarette smoke is very dangerous for the health of the unborn baby or the fetus that is still in the womb. The longer pregnant women are with active smokers in the house with exposure to cigarette smoke every day, the higher the risk of giving birth to babies with low birth weight. Harmful substances from cigarettes inhaled by pregnant women will be carried into the mother's blood stream, causing reduced oxygen reception for the baby and the placenta, which means less nutrition for the baby. Based on the results of Maidarti's research (2015) in first trimester pregnant women, it is known that 58.33% of respondents have sufficient knowledge, 29.17% have less knowledge, and 12.5% have good knowledge. And it is known that 79.16% of respondents are still in a smoking environment, this can cause the risk of exposure to cigarette smoke in first trimester pregnant women is still high which can have an impact on fetal development even though the mother has sufficient knowledge.

## METHODS

The research design used in this study was a pr-experimental type of research quantitatively using a Quasi Experimental design with Non Equivalent Control Group. The sampling method uses the theory of Malhiotra (2006), which must be at least four or five times the number of question items. In this question there are 10 question items. So the number of samples taken in this study is approximately 50 samples (10 question items x 5). The sampling technique in this study used the Accidental Sampling technique. The population in this study were all pregnant women who had a pregnancy check-up/revisit at the Kandangan Health Center, while the number of samples was part of the total population of pregnant women who had a pregnancy check-up. The total number of samples was 64 pregnant women. The data in this study are primary data. The analytical test in this study was Wilcoxon.

## RESULTS

### 1. Distribution of Respondents Based on Receiving Information About the Dangers of Cigarette Smoke Exposure in Pregnancy

	Pre Test		Post Tes	
	F	%	F	%
Well	0	0	3	11,5
Enough	1	3,8	9	34,6
Not Enough	25	96,2	14	53,8
Total	26	100	26	100

Based on table 1, it is known that the pre-test knowledge is sufficient knowledge of

3.8% as many as 1 person and 96.2% knowledge is lacking as many as 25 people, while after the post-test, 3 people have good knowledge of 11.5%, sufficient knowledge is 34.6% as many as 9 people, and 53.8% lack of knowledge as many as 14 people with a total of 26 respondents. From these results it can be concluded that the results of respondents without being given health education are still lacking.

## 2. Distribution of Respondents Based on Receiving Information With Videos About the Dangers of Exposure to Cigarette Smoke in Pregnancy

	Pre Test		Post Tes	
	F	%	F	%
Well	0	0	14	36,8
Enough	3	7,9	22	57,9
Not Enough	35	92,1	2	5,3
Total	38	100	38	100

Based on table 2, it is known that the pre-test knowledge is sufficient knowledge of 7.9% as many as 3 people and 92.1% lack of knowledge as many as 35 people, while after health education with video was given and then given a post test, it was obtained good knowledge of 36.8% as many as 14 people, knowledge enough 57.9% as many as 22 people, and 5.3% lack of knowledge as many as 2 people with a total of 38 respondents. From these results it can be concluded that the results of respondents after being given health education with videos have sufficient knowledge.

## 3. Normality Test Analysis

Group		Kolmogorov-Smirnov			Shapiro-Wilk			Note.
		Statistic	df	Sig.	Statistic	df	Sig.	
Hasil	PreTest Kontrol	0,216	26	0,003	0,857	26	0,002	Abnormal
	PostTest Kontrol	0,219	26	0,002	0,867	26	0,003	Abnormal
	PreTest Eksperimen	0,191	38	0,001	0,915	38	0,007	Abnormal
	PostTest Eksperimen	0,219	38	0,000	0,923	38	0,012	Abnormal

Based on table 3 above, the results of the normality test are obtained in order to determine the statistical test to be used. And the results of the significance value of the pre and post control groups were  $< 0.05$  and the pre and post intervention groups were  $< 0.05$ . So it can be concluded that the data is not normally distributed.

## 4. Analisis Uji Wilcoxon

Post Test-Pre Test	
Z	-5,513
Asymp. Sig. (2-tailed)	.000

Based on table 4 above, it is known that  $H_0$  is rejected and  $H_1$  is accepted, which means that there is a difference in the average results of pre-test and post-test health education so that it can be said that there is an effect of using video media on the knowledge

of pregnant women about the dangers of exposure to cigarette smoke during pregnancy at the Kandangan District Health Center. Kediri. ( $p = 0.000 < 0.05$ ).

This study is in line with the research of Purwanta, et al (2021) that counseling with leaflets and audiovisuals showed a significant increase in knowledge ( $p < 0.05$ ). Where the significance value of  $p = 0.000$  is smaller than the  $p$  value. So it can be stated that there is an influence on the use of audiovisual media on knowledge in creating a smoke-free house.

## DISCUSSION

### A. Knowledge of the dangers of exposure to cigarette smoke in pregnant women without health education at the Kandangan Health Center.

Based on table 1, it is known that some respondents have less knowledge about the dangers of exposure to cigarette smoke, namely 14 respondents (53.8%), who have sufficient knowledge as many as 9 respondents (34.6%) and who have good knowledge only 3 respondents (11.5 %). Based on these data, respondents' knowledge about the dangers of exposure to cigarette smoke without being given treatment in this study was sufficient. Knowledge is the result of human sensing or a person's result of an object through his five senses. Where the five senses consist of sight, sensing, smell, taste and touch. A person's knowledge is largely influenced by the sense of hearing and the sense of sight. A person's education is closely related to knowledge, but it is not an absolute thing that people with low education also have low knowledge. Because knowledge is not only obtained from formal education, but also from non-formal education.

Based on the results of the research questionnaire that has been filled in, it is known that the mother's knowledge about the dangers of exposure to cigarette smoke in the pre test results obtained that the lowest total score is in question number 6, which is about the components contained in cigarette smoke with a total score of 8 and after retesting (post test) the results obtained the lowest total score is in question number 7 with a total score of 9 which is about diseases caused by exposure to cigarette smoke. This is in line with Mudyawati's research (2020) at the Herlang Health Center, Bulukumba Regency regarding the study of pregnant women's knowledge about the dangers of exposure to cigarette smoke in pregnancy. The highest knowledge result was 61.9%, while those with good knowledge were 14.3%, and less by 23.8%. In Melva Manurung's research (2020) in Gasaribu Village, Laguboti District, the knowledge of pregnant women about the dangers of smoking to pregnancy and the fetus is 55% sufficient, 16% good, and 2% less. Likewise, Dexy Wulansari's research (2015) in Samsinar (2019) stated that the level of knowledge of pregnant women about the dangers of cigarette smoke at BPM Ririn Yulianti Sawahan Ngemplak Boyolali, respondents with a good level of knowledge were 7 respondents (20%), a sufficient level of knowledge was 21 respondents (60%), and those who have less knowledge are 7 respondents (20%).

Knowledge is a very important domain for helping someone's actions. Knowledge is also needed to foster self-confidence as well as attitudes and behavior every day, so it can be said that knowledge is a fact that supports one's actions.

### B. Knowledge of the dangers of exposure to cigarette smoke in pregnant women before receiving video-based education at the Kandangan Health Center, Kediri Regency.

Based on table 2, it is known that the pre-test knowledge of respondents in the experimental group is 92.1%, 35 respondents are lacking and 7.9% has sufficient knowledge of 3 respondents. Based on these data, respondents' knowledge about the dangers of exposure to cigarette smoke before being given treatment in this study was lacking. Pregnancy is a natural and physiological process that must be maintained as well as possible by taking into account various factors, one of which is to abstain from exposure to cigarette smoke, both as

active smokers and passive smokers. So the knowledge of pregnant women in this case is very necessary.

Based on the results of the research questionnaire that has been filled in, it is known that the mother's knowledge about the dangers of exposure to cigarette smoke in the pre test results obtained that the lowest total score is in question number 8, which is about diseases caused by exposure to cigarette smoke, only 10 respondents can answer from 38 respondents. experimental group. According to the research by Samsinar (2019) regarding the determinants related to the level of knowledge of pregnant women about the dangers of cigarette smoke to the fetus at the clinic "S" of 64 respondents 71.9% had low knowledge. Likewise, in the study of Syukaisih, et al (2018) in Pekanbaru, it was known that knowledge about the dangers of smoking before being given health promotion with video media was 9 people (60%) with low knowledge of 15 respondents.

Knowledge is the result of knowing someone after he sees, hears, and pays attention to an object. Health education is one way that can be done to increase public knowledge or pregnant women in an effort to improve their health better.

### **C. Knowledge of the dangers of exposure to cigarette smoke in pregnant women after receiving video-based education at the Kandangan Health Center, Kediri Regency.**

Based on table 3 After being given a health education intervention with video, the results of the post test on less knowledge decreased to 5.3% as many as 2 respondents, 36.8% had good knowledge of 14 respondents, and the highest was moderately knowledgeable, which was obtained 57.9% as many as 22 respondents. This shows an increase in the results of the respondents after being given health education with video media. In the results of the completed questionnaire, it is known that the mother's knowledge about the dangers of exposure to cigarette smoke in the post test results obtained that the lowest total score is in question number 9, which is about diseases caused by exposure to cigarette smoke as many as 20 respondents who can answer from 38 respondents in the group. experiment.

Based on the results of research by Syukaisih, et al (2018), after being given treatment with video media about smoking, the knowledge of respondents with low knowledge decreased to 3 people (20%) and high knowledge to 80% as many as 12 people. And in Sopyah A's research (2020) knowledge of pregnant women after being given an intervention in the form of media showed that 95.20% had good knowledge of 40 people and 4.80% had sufficient knowledge of 2 people. Knowledge is the result of a person's sensing of an object through his five senses, namely sight, sensing, smell, taste and touch. A person's knowledge is mostly obtained through the sense of hearing and the sense of sight. (Notoatmodjo, 2014). Knowledge is influenced by internal and external factors.

### **D. The Effect of Video-Based Health Education on Pregnant Women About Knowledge of the Dangers of Cigarette Smoke Exposure at the Kandangan Health Center, Kediri Regency.**

The results of this study indicate a significant increase in the average value of knowledge before and after being given an intervention using video media. These results are in line with the research hypothesis that there is an effect on the provision of video-based health education on the knowledge of pregnant women about the dangers of exposure to cigarette smoke in pregnancy at the Kandangan Health Center. The video media in this study covered the basic understanding of cigarettes, cigarette raw materials, substance content in cigarettes, the dangers and impacts of cigarette smoke for health and for pregnant women, and explained the importance for pregnant women to avoid exposure to cigarette smoke in the surrounding environment. In addition, the materials in this video were delivered by several health workers. The background of the respondents in this study ranging from elementary school (SD) to high school (SMA). The data stated that there was a significant increase in knowledge in the intervention group that was given treatment using video. This is because the

information from the video can be understood by all levels of education. Mepprlink, et al (2015) stated that messages through audiovisual animation (video) are a way to inform health education to people who have low education or literacy and this audiovisual animation (video) also does not have a negative effect for people who have low literacy. tall. The data stated that there was a significant increase in knowledge in the intervention group that was given treatment using video. This is because the information from the video can be understood by all levels of education. Mepprlink, et al (2015) stated that messages through audiovisual animation (video) are a way to inform health education to people who have low education or literacy and this audiovisual animation (video) also does not have a negative effect for people who have low literacy. tall. The data stated that there was a significant increase in knowledge in the intervention group that was given treatment using video. This is because the information from the video can be understood by all levels of education. Mepprlink, et al (2015) stated that messages through audiovisual animation (video) are a way to inform health education to people who have low education or literacy and this audiovisual animation (video) also does not have a negative effect for people who have low literacy tall.

The control group that was not given health education (treatment) showed an increase in knowledge. The increase in knowledge scores occurred in both groups, but the mean increase in the intervention group was higher than in the control group. Table 4.8 shows that there are differences in the mean values of the pretest and posttest in the intervention group and the control group. The results of health education with video media are effective in increasing the knowledge of pregnant women at the Kandangan Health Center as evidenced by the results of statistical tests using the Wilcoxon test. the use of pregnancy at the Kandangan Health Center, Kediri Regency. These results are in accordance with Purwanta's research, et al (2021) that counseling with leaflets and audiovisual showed a significant increase in knowledge ( $p < 0.05$ ). Where the significance value of  $p = 0.000$  is smaller than the  $p$  value. So it can be stated that there is an influence on the use of audiovisual media on knowledge in creating a smoke-free house.

## CONCLUSION

The effect of health education with video media on the knowledge of pregnant women about the dangers of exposure to cigarette smoke in pregnancy at the Kandangan Health Center, Kediri Regency. This is indicated by the decrease in the number of respondents who have a low level of knowledge.

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