

## THE EFFECT OF EDUCATION ABOUT THE DANGERS OF SMOKING USING LEAFLET MEDIA ON KNOWLEDGE AND ATTITUDES THE HAMLET COMMUNITY OF TANETE LABBA

**Yusma Indah Jayadi**

Public Health Department, Faculty of Medicine and Health Science, Alauddin State Islamic University, [yusmaindahji@gmail.com](mailto:yusmaindahji@gmail.com)

**Nurdiyanah**

Public Health Department, Faculty of Medicine and Health Science, Alauddin State Islamic University, [nurdiyanah@uin-alauddin.ac.id](mailto:nurdiyanah@uin-alauddin.ac.id)

**Widia Maharani**

Public Health Department, Faculty of Medicine and Health Science, Alauddin State Islamic University, [widiamhrn379@gmail.com](mailto:widiamhrn379@gmail.com)

### ABSTRACT

#### Backgrounds

Health education is at achieving goals through behavioral changes that are influenced by several factors, including materials or messages conveyed by teaching aids, methods for health promotion. The purpose of this study was to determine the effect of the use of leaflet media on the knowledge and attitudes of the dangers of smoking in the people of Dusun Tanete Labba, Baji Pa'mai Village, Cenrana District, Maros Regency.

#### Methods

This type of research is a quasi-experimental research design with Pretest and Posttest without Control Group Design using leaflet media as a form of education for 30 people. Measurement of knowledge pre-test and post-test using a questionnaire and then analyzed using the T-test to determine and the Wilcoxon test on attitudes.

#### Results

The results showed that the use of leaflet media was effective in increasing public knowledge about the dangers of smoking, health education with leaflet media had a significant effect on the level of knowledge  $p = 0.021$  ( $p < 0.05$ ) and the attitude of respondents  $p = 0.000$  ( $p < 0.05$ ) related to dangers of smoking. This study concludes that there is an effect of education through leaflets on changes in smoking behavior of the people of Dusun Tanete Labba.

**Keywords:** Leaflet, Knowledge, Attitude, The Dangers Of smoking, Society

## BACKGROUND

Rural communities differ from urban communities in terms of lifestyle, outlook on life, behavior including community institutions to their leadership. Likewise, social structures, social processes, livelihoods, behavior patterns are also different from urban communities. For this reason, rural communities are always interesting to study (Angkasawati, 2015).

The proportion of smoking in the population aged 10 years in Indonesia are daily smokers (24.3%) and occasional smokers (4.6%). Meanwhile, according to the Province of South Sulawesi, smokers are daily (22%) and occasional smokers (3.9%). When viewed from the characteristics of the place of residence, it was found that the proportion of smoking in the population aged 10 years was higher in rural areas (25.8%) than urban areas (23%) (Risksedas, 2018).

A risk factor for respiratory infections and increasing the severity of respiratory disease is smoking. A review of research conducted by WHO, especially public health experts on April 29, 2020, found that smokers caused a higher severity of COVID-19 than non-smokers (WHO, 2020).

Half of tobacco users have died. More than 8 million people are killed every year because of tobacco use. Of the 8 million, 7 million of them are direct tobacco users and 1.2 million are passive smokers. Tobacco users worldwide, about 80% of the 1.3 billion people live in middle- and lower-income countries, where tobacco-related illness and death are most severe. The main cause of death, disease and impoverishment is tobacco users (WHO, 2021).

WHO has been assisting international locations to put in force decreased call for for MPOWER since 2007. Measures at the very best stage of achievement, in keeping with WHO-FCTC, particularly are tobacco use tracking and prevention policies, protective humans from tobacco smoke, imparting help to stop tobacco use , warnings approximately the risks of tobacco, enforcement of prohibitions on tobacco advertising, advertising and sponsorship; and growing tobacco taxes (WHO, 2008).

One of the things that academics can do in the six steps above is warning about the dangers of tobacco in the form of education. Research conducted on the Pauwo Village community showed that the education of the Stop Smoking Movement to support GERMAS showed an increase in public understanding about the dangers of smoking and the importance of implementing PHBS in daily life (Hiola et al, 2021)

Other studies have also shown an increase in knowledge and attitudes after education on the dangers of smoking through booklets and videos in various regions. One study stated that leaflet media was more effective than video (Purwadi, et al, 2019) (Purwadi, et al, 2019) (Takaheghesang, et al, 2019) (Kasman, et al, 2017).

Therefore, researchers are interested in examining the effect of education on the dangers of smoking through leaflet media on the knowledge and attitudes of the people of Dusun Tanete Labba, Maros.

## METHOD

This study is a pre-experimental study with a one-group pretest-posttest design. This design does not use a control group but only uses one experimental group to be given treatment. Testing the effect of treatment on the measured variables is done by comparing the state of the variables before and after the treatment is given.

This experiment was carried out in three stages, namely first by giving a pre-test to measure the knowledge and attitudes of respondents before receiving treatment. Furthermore, providing treatment (treatment), namely health education related to the dangers of smoking by using leaflet media. The last stage is to do a post-test by giving the same questionnaire as the pre-test to see the increase in respondents' knowledge and attitudes after the treatment is given (Sugiyono, 2013).

This research was conducted in Tanete Labba Hamlet, Baji Pa'mai Village, Cenrana District, Maros Regency. The population in this study were all residents who smoked in Tanete Labba Hamlet, Baji Pa'mai Village.

This study used a total sampling method so that a sample of 30 respondents was obtained. The independent variable in this study is health education using leaflet media, while the dependent variable in this study is the knowledge and attitudes of respondents regarding the dangers of smoking.

Collecting data in this study using a questionnaire instrument or questionnaire which is composed of a set list of questions and is closed, this is done to avoid widespread information because each respondent has a different base of knowledge and experience. Knowledge questions use the Guttman scale, which is a scale that uses two answer criteria (Yes and No) with the highest score of one and the lowest score of zero. The Guttman scale aims so that each respondent can provide a firm and consistent answer regarding the problem being asked (Sugiyono, 2013). The researcher assigns a score for each positive question, namely yes, a score of 1 (one) and no, a score of 0 (zero), while for each negative question a score of 1 (one) is given for the answer no and a score of 0 (zero) for the answer yes. Knowledge is categorized as good if the respondent scores more than or equal to 50%, while it is categorized as poor if the respondent scores less than 50%.

The attitude variable uses a Likert scale consisting of four choices of statements with varying scores, namely SS (Strongly Agree) = 1, S (Agree) = 2, TS (Disagree) = 3, and STS (Strongly Disagree) = 4. There are 10 questions related to attitude, so it is categorized as positive if the respondent's answer score is more than or equal to 62.5% and is categorized as negative if the score is less than 62.5%. Furthermore, paired sample t-test analysis was conducted to see the effect of health education on the knowledge variable and the Wilcoxon test to assess the effect of health education on the attitude variable.

## RESULTS

Table 1. Distribution of Respondents by Age on the Dangers of Smoking Counseling in Tanete Labba Hamlet, Baji Pa'mai Village, Cenrana District, Maros Regencys

Age (Years)	Total	
	n	%
15 – 24	5	16.7
25 – 34	7	23.3
35 – 44	7	23.3
45 – 54	11	36.7
<b>Total</b>	<b>30</b>	<b>100.0</b>

Source: Primary Data 2020

Based on table 1, the majority of respondents are in the 45–54-year age category, namely 11 respondents (36.7%), every 7 respondents (23.3%) for the 25-34 years and 35-44 years age categories, and as many as 5 respondents (16.7%) aged 15-24 years.

Table 2. Distribution of Respondents' Knowledge Levels and Attitudes Based on Pre-test and Post-test Responses to Health Extension with Leaflet Media in Tanete Labba Hamlet, Baji Pa'mai Village, Cenrana District, Maros Regency

Variable	Category	Pre-Test		Post-Test	
		n	%	n	%
Knowledge	Well	18	60.0	24	80.0
	Not enough	12	40.0	6	20.0
Attitude	Positive	15	50.0	19	63.3
	Negative	15	50.0	11	36.7

Source: Primary Data 2020

Based on table 2, it is known that before the intervention, as many as 18 respondents (60.0%) had good knowledge regarding smoking and after the intervention increased to 24 people (80.0%). Respondents' attitudes regarding smoking showed that before the intervention, as many as 15 respondents (50.0%) had a positive attitude related to the dangers of smoking and after the intervention increased to 19 respondents (63.3%).

Table 3. The Effect of Health Counselling with Leaflet Media on Respondents' Level of Knowledge and Attitudes regarding the Dangers of Smoking

Variable	Pre-test (Mean ± SD)	Post-test (Mean ± SD)	p
Knowledge	6.33±0.483	7.20±0.414	0.021*
Attitude	25.63 ± 0.915	28.90 ± 0.983	0.000**

Source: Primary Data 2020

\*Paired t-test \*\* Wilcoxon test

Table 3 shows that there was an increase in the average value of respondents' knowledge before and after health education using leaflet media, from 6.33 to 7.20. The results of the paired t-test showed a significance value of  $p = 0.021$  ( $p < 0.05$ ) so it can be concluded that there are differences in the level of knowledge of respondents before and after health education with leaflet media.

Likewise, the attitude of the respondents increased from 25.63 to 28.90. The results of the Wilcoxon test showed a significance value of  $p = 0.000$  ( $p < 0.05$ ) so it could be concluded that health education using leaflet media had a significant effect on respondents' attitudes regarding the dangers of smoking.

## DISCUSSION

### Knowledge

Health education is one of the strategies used to increase a person's knowledge and abilities to change or influence human behavior individually, in groups, or society. Health education aims to change the behavior of individuals, groups, and the larger population, namely from behaviors that are considered detrimental to health to behaviors that provide health benefits, both now and in the future. (Simonds, 1976 in Glanz, Lewis and Rimer, 2008).

The form of treatment (intervention) carried out in this study was health education using leaflet media. The leaflet used is in the form of a folded sheet containing writing in short and dense sentences and accompanied by simple and attractive pictures to allow respondents to receive information visually and easier to understand. (Jatmika et al., 2019). The material given to the respondents includes the harmful substances contained in cigarettes, the dangers posed to both active and passive smokers, ways to minimize the impact, including tips for quitting smoking.

This study shows the result is an increase in the average value of respondents' knowledge before and after health education using leaflet media, from 6.33 to 7.20.

The results of the paired t test showed a significance value of  $p = 0.021$  ( $p < 0.05$ ) so that from this p value there was a difference in the level of knowledge of respondents after health education was carried out through leaflet media.

The influence of health education on the level of knowledge is believed to be because the researchers used leaflet media which were designed with contrasting color combinations, equipped with attractive pictures and clear writing. These results are in line with the research of Irnawati, Syria, and Yusriani in 2019 which found that there was an effect of educational intervention with leaflet media on increasing students' knowledge about cigarettes and liquor. The use of leaflet media in health education is considered more effective than media with WhatsApp in increasing students' knowledge. This is because the leaflet is printed on a piece of paper, the message is written clearly and can be read repeatedly by students (Irnawati, Syria, and Yusriani, 2019).

Some of the same studies also concluded that health education has a positive effect on increasing knowledge about the dangers of smoking in adolescents (Kasman, Noorhidayah, and Persada, 2017; Martias and Nursamsi, 2017; Pertiwi, Engkeng and Asrifuddin, 2018; Irnawati, Syria and Yusriani, 2019; Rusli et al., 2020). Research on rural communities in Malaysia also showed that there was a significant difference in the mean score obtained for knowledge related to smoking risk before and after the intervention ( $p=0.006$ ), which reflected the effectiveness of the health education intervention program carried out. (Hs, Juni, and BZ, 2016).

### **Attitude**

Attitude is defined as a learned tendency to think, feel and act in a certain way towards a particular object or class of objects (Ribeaux and Poppleton, 1978 in Katz and Peberdy, 1997). Attitudes are formed from three components, namely cognitive, affective, and behavioral. It is very difficult to change attitudes, but theoretically, intervention in any of these three components can influence attitudes. For example, attitude change can be achieved by providing information that contradicts one's beliefs (Katz and Peberdy, 1997). Health education has an important role in changing attitudes because of social communication in the form of providing information from one person to another that will affect their attitude. (Yusriani and Alwi, 2018).

Respondents' attitudes regarding smoking showed that before the intervention, as many as 15 respondents (50.0%) had a positive attitude related to the dangers of smoking, and after the intervention increased to 19 respondents (63.3%). The attitude of the respondents increased from 25.63 to 28.90. The results of the Wilcoxon test showed a significance value of  $p = 0.000$  ( $p < 0.05$ ) so it could be concluded that health education using leaflet media had a significant effect on respondents' attitudes regarding the dangers of smoking.

The results of this study support previous research which revealed that the provision of counseling on the dangers of smoking using leaflet media proved to have a significant effect on changes in attitudes of students of SMP Negeri 3 Bintan Timur. (Martias and Nursamsi, 2017). In addition, some studies conclude that health education-based interventions using leaflets as a conventional method are effective for reducing NCD risk factors among selected rural populations in Bangladesh. There was a significant difference before and after giving health education with leaflet media to the decrease in the number of tobacco sticks smoked every day ( $P=0.016$ ) as well as the frequency of using smokeless tobacco every day ( $P=0.005$ ). This method can be recommended as a promising strategy in various health education programs to reduce the burden of NCDs, especially in areas with inadequate resources. (Mondal et al., 2019).

However, this study is not in line with the research of Rusli et al. (2020) who concluded that counseling using leaflet media did not affect students' attitudes about cigarettes at SMA Negeri 1 Peulimbang, Bireuen Peulimbang Regency in 2019 (Rusli et al., 2020). Students' attitudes towards cigarettes are possible because school-age children tend to have a high curiosity and an urge to try something new so that they ignore the message of knowledge about the dangers of smoking.

This is different from this research, which is dominated by the adult age group who already have certain knowledge, attitudes, and skills that they have had for years so that the educational messages can be more easily understood and accepted by adults. Psychology, social communication skills, and experience are factors that influence the formation of individual attitudes. Psychological factors can be related to a person's age. When compared to older people, young people tend to have a bold attitude and demand freedom (Murphy-Hoefer, Hyland and Rivard, 2010; Yusriani and Alwi, 2018)

## CONCLUSIONS AND SUGGESTIONS

Based on the results of research conducted in Tanete Labba Hamlet, Baji Pa'mai Village, Cenrana District, Maros Regency, it can be concluded that health education using leaflet media has a significant effect on the level of knowledge and attitudes of respondents regarding the dangers of smoking. It is recommended to introduce and multiply information related to the dangers of smoking by utilizing various counseling media so that public knowledge about the dangers of smoking can be better.

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