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**MATERNAL AND CHILD HEALTH CARE
WITHIN THE SCOPE OF
LOCAL CULTURE**



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Website : <http://stikesdehasen.ac.id>

Email : stikes_dehasen@yahoo.co.id

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THE EFFECT OF HEALTH EDUCATION ABOUT CIGARETTE DANGERS ON CHILDREN (AGED 10-12)' KNOWLEDGE AT ELEMENTARY SCHOOL 18 PALANGISANG IN BULUKUMBA

Asnidar
Bulu Kumba Makasar

ABSTRACT

Smoking has been known as a bad habit, bringing negative effect on humans' health, physically and psychologically. Smoking habits has not only been seen among adults but also on young people recently, including students in elementary schools.

The purpose of this study was to identify the effect of health education related to the dangers of smoking on children (aged 10-12)' knowledge since it is believed that health education benefits has been widely known, but its efficacy on young people still need exploration.

This study used pre-experimental approach with *one group pre and posttest design*. Sample of this study consisted 32 children selected through purposive sampling. The experimental group received the intervention (health education) as of two times and each session took 30 minutes of teaching in

The data obtained was analysed statistically with *wilcoxon test* which resulted in p value 0.000. With this findings, H_0 was rejected while H_a was accepted. It was concluded that there was an effect of health education about smoking directed to elementary school children (aged 10-12) in elementary school 18 Palangisang in Bulukumba. The researcher suggested that this study can be used as reference to improve nursing services for public. Nurses can play wide range of role as educator particularly for young people.

Keywords: health education, knowledge level, smoking dangers

Introduction

Smoking is a bad habit that can damage the health of yourself and others, no doubt that most people are aware of the negative effects caused by smoking. In fact we can find it in daily life, for example in the environment of homes, offices, public transportation and on the streets many people smoke (Komalasari & Helmi, 2008, quoted in Ndarumaya 2013).

The dependence on cigarettes will attack the smoker's body both physically and psychologically and can pose various risks of disease and is a habit without positive goals for human health. The impact of smoking on health that results in disruption of hair loss in the eye, resulting in various diseases such as heart disease, stroke, lung cancer, breast cancer, cervical cancer (Tumigolung, Wungouw, Onibala, 2013).

This habit does not only occur in adults but has spread to teenagers and even school students. Not only high school or high school students, but has spread to junior high school students and even elementary school students. The results of research conducted by the youth cadets of Mojosongo Village, it is known that

60% of elementary school students in Mojosongo said they had smoked (Septiyaning, 2013).

Based on these data the concern is the age of starting smoking, which is getting younger each year. In the past, people dared to smoke usually when they were in middle school, and now they can be found in elementary school-age children who have dared to smoke clandestinely. Plus, nowadays more and more parents and relatives are smoking. The desire of children to smoke is also driven by the notion that smoking will be accepted by certain groups (Bangun, 2008, quoted in Ndarumaya, 2013).

Smoking becomes a major risk factor that globally plays a role in 6 of the 8 main causes in the world WHO (World Health Organization) According to WHO (2008) every 6.5 seconds one person dies due to smoking. Data from WHO, Indonesia has the highest number of smokers in the world after China and India according to WHO in 2009 reached 1.1 billion consisting of 47% are men, 12% are women and 49% are children (Tumigolung, Wungouw, Onibala, 2013). The

number of smokers in the world continues to grow mainly because of an increase in the population. It is estimated that there are around 2 billion people in the world who smoke in 2030 (Eriksen, 2002, quoted by Ndarumaya, 2014).

Based on data from The ASEAN Tobacco Control Report in 2007, the number of smokers in ASEAN reached 124,691 million people and Indonesia accounted for the largest smokers, namely, 57,563 million people or around 46.16% (Tumigolung, Wungouw, Onibala, 2013).

The results of a recent study conducted by the Global Adult Tobacco Survey (GATS) of Indonesia in 2011, showed that Indonesia ranks first with the highest prevalence of active smokers compared to other countries implementing GATS (MOH RI, 2012, quoted in Harmoko, 2014).

Based on the latest data from the 2013 Basic Health Research, active smokers from the age of 10 years and over totaled 58,750,592 people. The number of smokers among children (10-14 years) even increased from 71 thousand in 1995 to 425 thousand in

2010. In other words, the number of child smokers has increased six times in the last 15 years. The highest proportion of population aged > 10 years who smoke every day is in Riau Islands Province (27.2%), then West Java and Bengkulu (27.1%) and South Sulawesi (24.7%) (Risksedas 2013, National Research and Development Agency, RI Ministry of Health, 2014).

According to Lawrence (Notoatmodjo, 2003, quoted in Ndarumaya 2013), it explains that a person's behavior is motivated or influenced by three main factors namely predisposing factors including knowledge (can be obtained through education, media exposure, social relations and experience), attitudes, beliefs, traditions, values and so on, enabling factors include the availability of resources / facilities, reinforcing factors including the attitudes and behavior of officers or community leaders. Therefore, health education as an effort to provide knowledge about the dangers of smoking must be directed to these three main factors.

According to Charter quoted from notoatmodjo, health education is a process to

improve the ability of people to maintain and improve their health. In addition to increasing the degree of perfect health, both physical, mental and social, the community must be able to recognize and realize their aspirations, needs, and be able to change or overcome their environment (physical, social, cultural, etc.) (Ndarumaya, 2013).

It can be concluded that the role of health education is to intervene knowledge factors so that individual, group or community knowledge is in accordance with health values. In other words, health education is an effort to provide psychological conditions from the target so that they have knowledge in accordance with health values. After health education is given about the dangers of smoking it is expected that individuals, groups or communities can behave healthy lives without smoking (Ndarumaya, 2013). The purpose of this study was to determine the effect of health education on changes in the level of knowledge about the dangers of smoking in children aged 10-12 years at SDN 18 Palangisang, Ujung Loe District, Bulukumba Regency in 2016.

Method

The design of this study was pre-experimental research design with one group pre and posttest design. (Saryono, 2011). The population in this study were children aged 10-12 years. The sample size is determined based on the following formula (Sugiyono, 2012). The number of samples is 32 people. The sampling technique in this study is the Nonprobability sampling technique with purposive sampling (Nursalam, 2013). The research instrument used for health education is SAP (Counseling Event Unit) for 30 Minutes, Leaflet or Flip chart, as a tool. Where on the first day pre-test, the second and third day of health education and the fourth day post-test. The measurement scale of the data is nominal. The measurement results are the intervention group given health education. The research instrument used to measure knowledge was a Guttman scale questionnaire that had previously been tested for validity and reliability. Data were analyzed univariately and bivariately. The statistical test used is the *Wilcoxon test*.

Results

a. Characteristics of respondent

Table 1.1 distribution characteristics of respondent at SDN 18 Palangisang, UjungLoe District Bulukumba Regency in 2016

Age	Frequency	Percentage
10 years	10	31,3
11 years	14	43,8
12 years	8	25,0
Total	32	100,0
Gender	Frequency	Percentage
Male	15	46,9
Female	17	53,1
Total	32	100,0
Class	Frequency	Percentage
Class IV	13	40,6
Class V	19	59,4
Total	32	100,0

Source: Primary Data 2016

Based on table 1.1 it can be seen that the majority of respondents are at the age of 11 years (43.8%), are female (53.1%), and Class V (59.4%).

b. Distribution of respondent's knowledge

level before and after health education

Table 1.2 distribution of the number of respondents Before and after being given Health Education At SDN 18 Palangisang, Ujung Loe Subdistrict Before and after given district health education Bulukumba 2016

Knownge	Pre Test		Post test	
	f	%	f	%
Well	3	9,4	26	81,3
Enough	21	65,6	6	18,8
Less	8	25,0	0	0
Total	32	100,0	32	100,0

Source: Primary Data 2016

Based on table 1.2. obtained that the level of knowledge in children aged 10-12 years at SDN 18 Palangisang before being given

health education is largely in the category of sufficient knowledge, as many as 21 respondents with a percentage of 65.6%, and after being given health education is in the category of knowledge level good, as many as 26 people with a percentage of 81.3%.

c. Differences in the level of knowledge of children aged 10-12 years about the dangers of smoking before and after being given health education at SDN 18 Palangisang

Table.1.3 Analysis of Differences in Knowledge Levels in Children 10-12 Years About the Dangers of Smoking Before and After being given health education at SDN 18 Palangisang

Category	Pretest Knowledge		Knowledge Posttest		p
	F	%	F	%	
Well	3	9,4	26	81,3	0,000
Enough	21	65,6	6	18,8	
Less	8	25,0	0	0	
Total	32	100,0	32	100,0	

Source: Wilcoxon Test

Based on table 1.3 shows that after health education there was an increase in the percentage of respondents with a good category that is from 3 respondents (9.4%) to 26 respondents (81.3%), as well as enough categories from 21 respondents (65, 6%) became 6 respondents (18.8%) and categories of less than 8 respondents (25%) became (0%). The static test results obtained *P* value

of 0.05, this shows there are differences in the proportions before and after health education or in other words there is an influence of health education about the dangers of smoking on the knowledge of children aged 10-12 at SDN 18 Palangisang, Ujung Loe Subdistrict, Bulukumba District.

Discussions

Based on the results of the study showed that the knowledge of children aged 10-12 years at SDN 18 Palangisang about the dangers of smoking before being given health education was mostly in the category of sufficient knowledge level of 21 respondents (65.6%), and around 8 respondents (25, 0%) at the level of lack of knowledge, and 3 respondents (9.4%) with a good level of knowledge. This study is in line with the 2013 Ndarumaya research, which shows the level of knowledge of students about the dangers of smoking before health education is categorized as a majority of 33 respondents (82.5%). This type of research is a quasi-one-group pre-test and post-test experiment with health education intervention. The research process was carried out in August-September

2013 in RW 07 Sawah Besar Semarang Village with saturated sampling technique. Methods of data analysis using the Cowro Wilks test, Wilcoxon statistics. The results showed a significant difference in knowledge in the experimental group given health education ($p = 0.00$).

Notoadmodjo, (2003) (quoted in Lestari, 2015: 1) said Knowledge is the result of knowing, and this happens after people sensing certain objects. The senses of the five human senses whose senses of sight, hearing, smell, taste and touch. Most of human knowledge is obtained through the eyes and ears, the process of seeing and hearing. providing education both individually and in groups can increase knowledge.

Knowledge itself is influenced by formal education factors. Knowledge is very closely related to education, where it is expected that with higher education the person will also be more knowledgeable. However, it needs to be emphasized, it does not mean that someone with low education is absolutely low in knowledge as well. This reminds that the increase in knowledge is not absolutely

obtained from non-formal education, but can be obtained through non-formal education. A person's knowledge of an object contains two aspects, namely positive aspects and negative aspects. These two aspects will determine a person's attitude, the more positive aspects and objects that are known, the more positive the attitude will be towards certain objects. According to the theory of WHO (World Health Organization) quoted by Notoatmodjo (2007), one form of health object can be translated by knowledge gained from one's own experience (Wawan & Dewi, 2011: 11).

The researchers' assumptions are related to the results of the study, that the number of children who experience a sufficient level of knowledge is caused because most children have heard information about the dangers posed by cigarettes from various sources such as cigarette advertisements themselves, this is in accordance with the theory of factors affecting knowledge between others, the level of education, information, experience, culture, social economy. In addition, technological developments can easily increase knowledge and information.

Based on the results of the study showed that the knowledge of children aged 10-12 years at SDN 18 Palangisang about the dangers of smoking after being given health education was mostly in the category of good knowledge, namely about 26 children (81.3%) and some were at the level of sufficient knowledge. around 6 children (18.8%). From 32 respondents who were at a good level of knowledge before giving health education as many as 3 respondents and after giving health education as many as 26 respondents, and 21 respondents who had sufficient knowledge after being given health education decreased to 6 respondents, before providing education health there are 8 respondents who have less knowledge and after providing health education there are no more respondents who have less knowledge.

This study is in line with research conducted by Nuradita, Mariyam, 2013, namely the level of student knowledge about the dangers of smoking after health education, the majority had a high category of 33 respondents (58.9%). This research is a pre-experimental design study using the form of

one group pretest-posttest design. The sampling technique used was proportional stratified random sampling, and a total sample of 56 respondents was obtained. The results of the statistical test analysis using the McNemmar test obtained p value = 0,000 α 0.05. It can be concluded that the results of this study indicate that there is an effect of Health Education on the Knowledge of the Dangers of Cigarettes in Adolescents in SMP Negeri 3 Kendal with a p value = 0,000.

Knowledge is very closely related to education, where it is expected that with higher education the person will also be more knowledgeable. Education is a systematic planning process and is used intentionally to influence behavior through a process of changing knowledge, attitudes and skills. Education is a process of achieving goals, meaning that this understanding includes that education in the form of a series of activities that starts from the actual conditions of individuals who learn, aimed at achieving the expected individual (Triwibowo & Pusphandani, 2015: 28).

Health education is a dynamic process of behavior change, with the aim of changing human behavior which includes components of knowledge, attitudes or actions related to the goals of healthy living both individually, in groups and society, as well as using existing health service facilities appropriately and appropriately (Triwibowo & Pusphandani, 2015: 28).

The researchers' assumptions are related to the results of the study that the level of knowledge of children has increased because it is influenced by the interventions provided in the form of health education about the dangers of smoking, by providing information done early by researchers to SDN 18 students in Palangisang adding knowledge of the effects of consuming cigarettes, besides that the intervention is expected to change attitudes and change behavior. early knowledge provision of the effects of the dangers of smoking can reduce or prevent smoking addiction.

Based on table 1.3 shows that after health education there was an increase in the percentage of respondents with a good

category that is from 3 respondents (9.4%) to 26 respondents (81.3%), as well as enough categories from 21 respondents (65, 6%) became 6 respondents (18.8%) and categories of less than 8 respondents (25%) became (0%). Static test results obtained niai $P < 0.05$, this shows that there are differences in the proportions before and after health education or in other words there is the effect of health education about the dangers of smoking on the knowledge of children aged 10-12 at SDN 18 Palangisang, Ujung Loe District Bulukumba.

This study is in line with the study of Tumigolung et al (2013), with the title research on the influence of health education on the level of student knowledge about the dangers of smoking in SMA Negeri 1 Manado: The design of this research is Pre-Experimental with Desaign one group pre-post test, sample selection by means of purposive sampling and the sample taken in this study were 100 students of SMA Negeri 1 Manado who met the inclusion and exclusion criteria. Furthermore, the data obtained were processed using the SPSS program version 16.00 and analyzed using the Wilcoxon test with a

significance level (α) of 0.05. The conclusion in this study there is a significant influence between health education on the level of student knowledge about the dangers of smoking with a value of $P = 0,000$.

Ikhsan *et al* (2012) with the title research on the Effects of Health Education on the Dangers of Smoking on Behavior to Reduce Cigarette Consumption in Adolescents also emphasized that before health education was carried out the category was quite good at 36.7%, not good at 63.3%. After being given health education the number decreased from the quite good category by 90%, not good 10.0% and statistically significant ($Z = -4.797$, $p = 0.000$). It was concluded that there was a significant influence between health education on the dangers of smoking on the behavior of reducing cigarette consumption. To follow up on the results of this study, it is expected that the health worker as an important role holder in providing information about cigarettes and the dangers to adolescents.

Health education is any planned effort in influencing others to rely on or change their attitudes in the health sector for the better.

Health education can be carried out in a number of individual and group education methods. Health education on the knowledge of the dangers of smoking makes a significant difference between before and after health education. Student knowledge after health education is increasing (Nuradita & Maryam, 2013).

The researcher's assumptions are related to the results of the study which found that prior to health education about the dangers of smoking it appears that more respondents' knowledge is in the sufficient category in terms of students or respondents' level of knowledge of the dangers of smoking is still lacking whereas after being given health education it appears that there is an increase in knowledge about the dangers of smoking then it can be concluded that health education is very influential on the knowledge of respondents.

Conclusions

There is an effect of health education about the dangers of smoking on the knowledge of children aged 10-12 years at SDN 18 Palangisang, Ujungloe District,

Bulukumba Regency. Therefore, in carrying out the role of nurses as Educators and related agencies, it can increase health promotion in schools to create a degree of public health in schools, as an educational institution, this is because most children aged 5-19 years are exposed to educational institutions for a long period of time. It is expected that health promotion in schools can increase student knowledge of the dangers of behavior that threatens health, including smoking so that it can help improve the health of students, teachers, employees, families and surrounding communities, so that the learning process takes place more productively.

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