THE EFFECT OF HEALTH EDUCATION ON THE ABILITY TO DEAL WITH EARLY CHEST PAIN IN OIL WORKERS

***Dwi Ananto Wibrata, **Naomi Ragil Putri Hartanti, ***Adivtian Ragayasa, *Siti Nurkholifah**
*Polytechnic Health Minister of Surabaya, Department of Nursing
**Diploma Program of Nursing Emegencyin Polytechnic Health Minister of Surabaya.
***Polytechnic Health Minister of Surabaya, Department of Emergency Nursing.
Email : Wibrata12@gmail.com

ABSTRACT

According to the World Health Organization (2012) Death from cardiovascular disease reaches 17.5 million people per year. This means that the figure reaches 31 percent of 56.5 million deaths worldwide. Cardiovascular diseases include coronary heart disease to be the first in the list of deadly chronic diseases in the world. More than three to four deaths from cardiovascular disease occur in developing countries and low to moderate income. From all deaths from cardiovascular disease 7.4 million (42.3%) are caused by coronary heart disease. Study method used observational analytic one group pre-post test design. Sampling techniques are using probability sampling techniques with a sample number of 32 respondents. Research instruments on educational variables and attitudes using questionnaires and behavioral variables using observation sheets. Test the statistics using the test Paired Sample T Test and Wilcoxon Sign Rank Test with the help of SPSS with significance value P = 0.05**.** The results of research using analysis of Paired Sample T Test and Wilcoxon Sign Rank Test showed an increase in knowledge, attitudes and behavior after given health education. Health education enhances the ability of oil-mining workers in the initial handling of chest pain. Recommendation: The results of this research can be used as a reference to develop the initial treatment program of chest pain in the activity of oil mine at Bojonegoro Wonocolo.

Keywords: Health education, Initial handlig, chest pain

Introduction

According to WHO (2012) Death from cardiovascular disease reaches 17.5 million people per year. This means that the figure reaches 31 percent of 56.5 million deaths worldwide. Cardiovascular diseases include coronary heart disease to be the first in the list of deadly chronic diseases in the world. More than three to four deaths from cardiovascular disease occur in developing countries and low to moderate income. From all deaths from cardiovascular disease 7.4 million (42.3%) are caused by coronary heart disease. (Priyanto and Anggraeni, 2019)

In Indonesia, the results of basic health research in 2018 showed that by 1.5% or 15 of 1,000 Indonesians suffer from coronary heart disease. Whereas if viewed from the highest cause of death in Indonesia, according to the Sample Registration System survey year 2014 showed 12.9% of death from coronary heart disease. (Ministry of Health, 2018). Data from the Ministry of Health of Indonesia in 2014 (Ministry of Health Republic Indonesia, 2014) mentions that the prevalence of coronary heart disease in

East Java in 2013 based on the diagnosis of doctors is 0.5% or about 144,279 sufferers, while the prevalence of coronary heart disease in East Java based on doctor'sdiagnosis or chest pain symptoms is 1.3% or around 375,127 patients and is the highest number of patients with coronary Heart disease becomes the main cause of death in Bojonegoro, according to data from the hospital general Sosrodoro Djatikusuma Bojonegoro, heart failure from the number of sufferers reaches 235 people with the case of death reaches 37 people. (Sudirman, 2017). Data obtained at the UKK (Occupational safety) post of oil mine workers during the month of May 2019 – July 2019 There were 2 people affected by heart attack and died.

Coronary heart disease is a disturbance of cardiac function in which the heart muscle is deficient in blood supply caused by narrowing of coronary arteries. Coronary heart disease is clinically characterized by the presence of chest pain or Angina pectoris (Barbara, 2010). Chest pain is one of the main problems that should be addressed as it can interfere with both physical and psychological patients. The physiological response of the pain resulted in sympathetic stimulation, which would lead to the release of Epineprin, the presence of an increased Epineprin resulting in rapid heart rate, rapid and shallow breathing, pressure on the arteries increased. Psychological response is the feeling of anxiety and fear of activity. When pain isleft untreated or not reduced in intensity, it can significantly threaten one's soul (Potter & Perry, 2010).

Chest pain management is part of a medical science displinate that relates to the efforts to relieve pain or pain relief (Pratintya, Harmilah, & Subroto, 2014). Some of the pain management of non-pharmacological therapies such as regulating the physiological position of pain, resting the client, and deep breath relaxation technique, (Muttaqin, 2011). The provision of relaxation techniques in deep breath will increase the supply of oxygen to the tissues thereby lowering the level of pain experienced by individuals (Agung, Andriyani, & Sari, 2013). Non-pharmacological therapy can be done by controlling emotions, reducing the heavy work that requires a lot of oxygen in its activity, reducing consumption of fatty foods, and adequate rest.

Based on the explanation that has been submitted above, the thought arises to know more about the influence of health education to the early handling ability of chest pain in the oil mine in Wonocolo Bojonegoro.

Method

This research draft uses pre-post-test design in one group The population was taken as much as 35 people with a large sample of 32 people meeting the criteria of inclusion. This research uses probability sampling techniques with free variablesHealth education and related variables are the initial handling ability of chest pain.

The collection of health education data on the initial handling ability of chest pain is using questionnaires and observation sheets. The Data obtained will be emulated and analyzed.

1. General Data

Table 1 Age of oil worker in Wonocolo Bojonegoro on 30 December 2019-07 January 2020

Age	Frequency	Percentage
25 – 39 years	9	28,1
40 – 54 years	19	59,4
> 55 years	4	12,5
Total	32	100

Table 2 Education of oil worker in Wonocolo Bojonegoro on 30 December 2019-07 January 2020

Education	Frequency	Percentage
Elementary School	9	28,1
Junior High School	12	37,5
Senior High School	10	31,3
Collage	1	3,1
Total	32	100

From the results of the study obtained data that the age of mine workers are mostly aged 40 – 54 years as many as 19 people (59.4%), aged 25 – 39 as many as 9 people (28.1%), and the age of > 55 years 4 people (12.5%). The education Data of oil mine workers mostly in Junior High School level as much as 12 people (37.5%), Senior High School level as much as 10 people (31.3%), and Elementary School level as much as 9 people (28.1%) Colleges as many as 1 person (3.1%).

2. Custom Data

1). Knowledge identification

Table 3 Distribution of knowledge of oil mine workers before and after gaining health education in the working area of Wonocolo Oil Mine, 06 January 2020

Knowledge	Before		After	
	N	%	N	%
Good	-	-	27	84
Enough	-	-	5	16
Less than	32	100	-	-
Total	**32**	**100**	**32**	**100**

From the results of the research gained that the knowledge of oil mines in total lack of knowledge. And after the health education was given most of his knowledge was good, and a small portion of his knowledge was sufficient.

2). Identification of attitudes

Table 4 Distribution attitudes of oil mine workers before and after gaining health education in the working area of Wonocolo Oil Mine, 06 January 2020

Attitude	Before		After	
	N	%	N	%
Positive	7	22	32	100
Negative	25	78	-	-
Total	**32**	**100**	**32**	**100**

From the results of the study gained that the attitude of oil mine workers is largely negative, and a small part is positive, and after the health education is given entirely positive.

3). Behavioral identification

Table 5 Distribution of behavior of oil mine workers before and after obtaining health education in the working area of the Wonocolo oil mine, 06 January 2020

Behavior	Before		After	
	N	%	N	%
Good	-	-	32	100
Enough	-	-	-	-
Less than	32	100	-	-
Total	**32**	**100**	**32**	**100**

From the research results before given health education in the get that the behavior of oil mine workers entirely less. And once given health education is obtained that the behavior of workers is entirely good.

4). Initial handling ability of chest pain

Table 6 Ability to initially handle chest pains in oil mine workers before and after health education in the working area of Wonocolo Oil mine, January 06, 2020

	Before	After	Asymp sig. (2-tailed)
Knowledge			
Good	-	27	P = 0,000
Enough	-	5	
Less than	32	-	
Attitude			
Negative	25	-	
Positive	7	32	
Behavior			
Good	-	32	
Enough	-	-	
Less than	32	-	

Results of cross-tabulation of data for early handling ability of chest pain in oil mine workers before given health education whose knowledge is good or insufficient, total knowledge of oil mine is lacking, the attitude of the negative mine worker there are 25 people and 7 people are positive, and the behavior of mine workers entirely still less than 32 people.

Results of cross-tabulation of data for early handling ability of chest pain in oil mine workers after being given a well-knowledgeable health education of 27 people and knowledgeable enough 7 persons, the attitude of mine worker is entirely positive for a total of 32 people, and the skill of mine workersthe oil entirely behaves well a number of 32 people.

Based on the Wilcoxon Signed Ranks Test for variable knowledge and behavior, test Paired Sample T Test for the attitude variable obtained Asimp. Sig (2-tailed) 0.000 with α value 0.05 then can be concluded so H0 in reject and H1 accepted. This indicates that there is a meaningful influence between providing health education to the improvement of the initial handling ability of chest pain in oil mine workers in the BojonegoroWonocolo oil mine.

Discussion

1. Identification of knowledge of oil mining workers before and after health education.

From the results of the research before given the health education of total oil mine workers (100%) Less than 32 people this indicates because the oil mine workers do not know or understand a material that is not supported also with the experience and level of education. Therefore, lack of knowledge can be handled by providing additional material or new information about a thing with an interesting method to increase understanding for oil-mining workers and after the education of health knowledge of the mines of 27 people (84.4%) Well, and 5 people (15.6%) Knowledge is enough. Good knowledge can be maintained by rerepeating a material or thing and applying it to everyday life.

2. Identification of oil mining worker attitudes before and after health education

From the results of the study before given the health education attitude of oil mine worker most of his demeanor was negative 25 people (78.1%), and a small part of the gesture was positive 7 people (21.9%). After being given total health

education (100%) Be positive. Negative attitudes of oil mine workers that cover avoiding, avoiding, or dislike certain objects. To be able to improve the attitude of oil mine workers, the responsible post UKK can teach mine workers to behave. This attitude is also related to knowledge, if the knowledge gained on a thing is less, then in the case of the oil mine workers will be away or dislike it. To maintain and improve the good attitude, UKK post is required to teach and provide health education and simulation in maintaining a good attitude of oil mine workers.

3. Identification of oil mining worker behavior before and after health education is given

From the results of the study obtained before the health education conduct of the oil mine workers entirely less than 32 people (100%), and after the health education behavior of oil mine workers entirely changed to good 32 people (100%). This is because most of the oil mining workers do not have a good knowledge of the initial handling action of chest pain. While less skilled oil mining workers are largely unaware of any techniques performed during the initial handling of chest pains.

Oil mine workers are largely behaviorally in conducting early handling of chest pains. This action also relates to the attitudes and knowledge that oil mine workers have. When oil workers know for example about the initial treatment of chest pain, it is the prevention of the onset of health problems such as heart attack or wind sitting so that they can do the initial treatment of chest pain in oneself or others. It is an example of the relevance of their knowledge, attitudes and ways of applying them.

4. The initial handling ability of chest pain in oil worker

Increased knowledge, attitudes and behaviors after given health education seemed very significant. It happens becauseproviding health education is able to improve knowledge, so attitudes and behaviors can also increase. Health education is able to change its unhealthy behavior to a healthier pattern and strive to make people aware of how to maintain their health, how to avoid or prevent things that harm the health of themselves and the health of others, where they should seek treatment if they are sick and so on.

This suggests that health education is indispensable for the increase in knowledge, attitudes and behaviors of oil mining workers in carrying out the initial treatment of chest pain.

Conclusions and Suggestions

Based on the objectives, research results, and discussion conducted by researchers, it can be concluded as follows:

1. After a health education to increase knowledge, where knowledge before given health education is entirely lacking, and after the health education is largely good.
2. Before the health education is given most of the attitude has largely negative, and after obtaining a health education entirely has a positive attitude.
3. There is a change in behavior after being given an education where the behavior before giving health education is entirely lacking, and after the health education is provided entirely well.
4. Health education affects knowledge and behaviour to be good and adequate which also affects the attitude of being positive.

Based on the conclusions outlined above, the suggestions that can be given are:

1. For further researchers
   Further research is required using more sample approaches or other researchers regarding the influence of health education on behavioral changes by measuring different variables.
2. Research site
   The UKK and related parties are expected to be more intensive in providing health education, especially the initial treatment of chest pain can be through health

promotion or simulated, either individually, or in groups.

3. For society
   Oil mining workers are expected after obtaining a health education can apply the initial treatment of chest pain to oneself or others and to transmit the information obtained to the surrounding community. So, in case of chest pain, people can also apply it.

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