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# Effect of Giving Health Education About Decompression Disease on Knowledge of Traditional Fisherman

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## ABSTRACT

One of disease that related to traditional fisherman is decompression disease. Decompression disease is disease with many various of complain and symptoms, those could disturb all of body system with same caused is nitrogen occurred in tissue and blood. This research purpose to know effect of giving health education about decompression disease to traditional fisherman knowledge at RT 06 in western seram districh, tanah goyang hamlet. Type of research is quasi experimental research with pre individual pra post test design. Sample has taken by total sampling amounted 40 head families as traditional fisherman. Data analyzet with paired t test. Result showed that knowledge variable pre test with p value 0,041 and knowledge with p value after giving health education equal 0.000. It was mean relation with incident of decompression disease.from the result, can be concluded that there was effect giving health educationabout decompression disease to traditional fisherman knowledge level at RT 06 in western seram district, tanah goyang hamlet.

**Keywords:** Health education, Decompression disease

## INTRODUCTION

Decompression disease is also called Bends, Compressed Air Illness Caison Disease, Dayfers Pls, Disbarism and Aeroembolisem. But now the term is rarely used. The first time the disease was discovered by triger in 1841, who saw symptoms of pain in the limbs and muscle spasms suffered by coal miners. In 1854, Pol and Watelle noticed that the symptoms it disappeared when it came to its original environment. In 1878, Paul Bert discovered that the gas bubbles in the network were nitrogen(1).

According to WHO estimates, 80% of people who experience hearing loss problems live in developing countries. In 1995 there were 120 million people with hearing loss worldwide. This number has experienced an increase that traditional fishermen generally only do work for generations or follow others, and without adequate health and safety dives. In general, dives carried out by traditional diving fishermen and traditional divers are breath-resistant dives and dives using air supply from the sea or lake surface which is channeled through an air compressor. Some studies outside Indonesia show that divers are most often experiencing hearing loss. A study of 429 pre-professional divers in Iran showed the most frequent external otitis disorder of 43.6%(2).

Nursalam (2016) stated that there are several risk factors for decompression such as: body fat, sex, age and activity(3).

## METHODS

This study used a pre-experimental research design with a pre-post test disignive approach. This research was carried out in Rt 06 of Tanah Goyang Hamlet, West Seram Regency on August 25-29 2017. The population in this study were all traditional fishermen in RT 06, Dusun Tanah Goyang, Huamual Subdistrict, West Seram Regency, this study used a total sampling so that a sample of 40 families was obtained.

The data collection technique in this study was to visit the residence of each respondent and conduct direct interviews using the questionnaire 1 research instrument after which the respondents would be given Health Education using a lifelong research instrument, after the third day the researchers distributed questionnaires 2 to see the effect of Health Education on knowledge respond to decompression disease. After the data obtained will then be analyzed using SPSS computer software. The analysis used is: Univariate Analysis and Bivariate Analysis using Pairet T Test parametric test. With significance ($\alpha = 0.05$).

## RESULTS

Table 1. Distribution of age of fishermen

| Age | Frequency | Percent |
|---|---|---|
| 15-45 Years old | 37 | 92.5 |
| 46-65 Years old | 3 | 7.5 |
| Total | 40 | 100.0 |

Based on the table above, it is known that of the total 40 respondents there were 37 respondents who had an average age of 15-45 years, while respondents with an average age of 46-65 years amounted to 3 respondents.

Table 2. Distribution of education of fisherman

| No | Education | Amount | Percentage |
|---|---|---|---|
| 1 | Elementary school | 24 | 60% |
| 2 | Junior high school | 3 | 7.5% |
| 3 | Senior high school | 13 | 32.5% |
| | Total | 40 | 100% |

It can be seen that out of a total of 40 respondents (100%) who traded as traditional fishermen in RT 06 in Tanah Goyang Hamlet there were 24 respondents (60%) with elementary education level, 3 respondents (7.5%) with junior high school education level and from 13 respondents (32.5%) with high school education level.

Table 3. Distribution of fisherman's knowledge about decompression, before health education was conducted

| No | Criteria | Amount | Percentage |
|---|---|---|---|
| 1 | Good | 0 | 0.0% |
| 2 | Enough | 1 | 2.5% |
| 3 | Less | 39 | 97.5% |
| | Total | 40 | 100 |

It can be explained that out of a total of 40 respondents (100%) knowledge distribution of traditional fishermen in Rt 06 Tanah Goyang Hamlet, West Seram District before health education was conducted, there were no respondents with Good knowledge criteria, 1 respondent (2.5%) with sufficient knowledge criteria, and 39 respondents (97.5%) with poor knowledge criteria.

Table 4. Distribution of fisherman's knowledge about decompression, afterhealth education was conducted

| No | Criteria | Amount | Percentage |
|---|---|---|---|
| 1 | Good | 40 | 100.0% |
| 2 | Enough | 0 | 0% |
| 3 | Less | 0 | 0% |
| | Total | 40 | 100 |

Table 4 shows that out of a total of 40 respondents (100%) distribution of knowledge of fishermen about Decompression disease in RT 06 Tanah Goyang Hamlet, West Seram District after health education, there were 40 respondents (100%) with good knowledge criteria, while not there are respondents (0.0%) with sufficient and less knowledge criteria.

Table 5. Knowledge of Fishermen about Decompression before and After Health Education

| Knowledge | n | % | n | % | (p) |
|---|---|---|---|---|---|
| Good | 0 | 0.0 | 40 | 100 | |
| Enough | 1 | 2.5 | 0 | 0.0 | 0.000 |
| Less | 39 | 97.5 | 0 | 0.0 | |
| Total | 40 | 100 | 40 | 100 | |

It was found that out of a total of 40 respondents prior to health education (pre-test) there were 39 (97.5%) respondents with knowledge value in the poor category and 1 (2.5%) respondents with knowledge value is in the sufficient category and there are no respondents with good knowledge values. While from a total of 40 respondents after health education (post-test) there were 40 respondents (100%) with the value of knowledge in the good category and there were no respondents with the value of knowledge that was in the category of enough and less.

## DISCUSSION

Fishermen's knowledge about decompression before health education, from 40 respondents (100%) and no respondent with a good value of doubt, 1 respondent (2.5%) with a sufficient percentage of knowledge, and 39 respondents (97.5%) whose percentage is lack of knowledge.

From the results of observations conducted by fishermen researchers also claimed to have never received information from the media, as well as from local health centers related to decompression disease. Thus the researchers assumed that traditional fishermen in RT 06 Tanah Goyang village did not understand about decompression disease. This happens because of several factors, namely education and lack of information. On the results of the characteristics of respondents, the majority of respondents have elementary or elementary school education. This is in accordance with what is described by Notoatmodjo (2014) that education can affect a person, including the person's behavior in life patterns, especially in motivating the attitude to participate in development. In general, the higher the education, the easier it is to receive information. In the research results obtained by respondents' education can be said to be sufficient. Knowledge is influenced by formal education, where it is expected that with higher education the knowledge will also be broader[(4)].

The knowledge of traditional fishermen in RT 06 Tanah Goyang village, West Seram Regency after doing Health Education, Of the total 40 respondents all have a percentage value of good knowledge this can be seen in table 4.1 which is known that of the total 40 respondents 37 respondents who had an average age of 15-45 years which included a productive age besides Health Education were also carried out at the home of each respondent, this would focus more on the respondent to pay attention to what the researcher explained so that the respondent could ask freely if there is something that has not been understood, thus what the researcher conveyed can be well understood by each respondent.

Health education is a process of change in a person that is linked to the achievement of individual and community health goals. Health education cannot be given to someone by another person, not a set of procedures that must be implemented or a product that must be achieved, but actually is a process of development that changes dynamically, in which accepts or rejects new information, attitudes, and related practices with the goal of healthy living[(4)]. Health education is the addition of knowledge and ability of a person through the practice of learning or instruction, with the aim of remembering facts or real conditions, by encouraging self direction, actively providing new information or ideas[(5)].

The results of this study can also be attributed to the results of research conducted by Hanugrah Abadi with the title "The Effect of Health Education on Family Knowledge on Post Struk Management at PKU Muhamadiyah Yogyakarta Hospital". There is an effect of giving health education to the respondents' knowledge[(6)].

This research was carried out in RT 06 Tanah Goyang Hamlet, West Seram Regency by visiting each respondent in the houses (dor to dor) and distributing questionnaires containing 13 questions including 3 questions for the respondent's biodata and 10 questions to analyze the respondent's knowledge related to the disease decompression before health education was carried out, After the respondent finished filling out the questionnaire the researcher gave health education and distributed leaflets prepared by the researcher after two days later the researchers distributed the second questionnaire to determine the effect of health education on each respondent's knowledge about decompression disease, the method used in this research is a question and answer speech

According to the assumption of researchers health education is very helpful to improve understanding and can open insight into thinking so that respondents can prevent the occurrence of decompression.

## CONCLUSION

From this research, it can be concluded that: 1) knowledge of fishermen in RT 06 of Tanah Goyang Hamlet, West Seram District about decompression disease is still very limited; 2) there is an influence on improving the knowledge of fishermen in RT 06 of Tanah Goyang Hamlet, West Seram Regency about decompression sickness after health education.

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