

# Effect of School Occupational Safety and Health Counseling to Sixth Grade Student Knowledge in Qardhan Hasanah Boarding School

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**ABSTRACT---** *This study aims to determine the effect of school occupational safety and health counseling to sixth grade student knowledge in Qardhan Hasanah boarding school. This study is experiment with Quasi Experimental design The Non Equivalent Control Group. This design uses two groups, where the first and the second group were given a pretest and posttest, but only one group is given the treatment (counseling). Research instrument was a questionnaire safety and health knowledge with the 10 item valid and reliable questions, with 10 votes for the correct answer and 0 for a wrong answer. The study sample 25 for the control group and 25 samples for the experimental group. Quantitative data analysis using analysis of two line variance techniques use SPSS. The study states that there is effect of counseling on occupational safety and health school to student knowledge.*

**Keywords---** Counseling, Occupational Safety and Health, Elementary School, Science

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## 1. INTRODUCTION

Legislation No. 23 of 1992 on Health, Article 23 stated that the efforts of Occupational Health and Safety (OHS) to be held in all workplaces, especially workplaces are at risk of health hazards, easily infected by disease or has employee at least 10 people.<sup>1</sup> By creating a system of safety and health at work involving elements of management, labor, working conditions and environment are integrated in order to prevent and reduce accidents, occupational diseases, as well as the creation of a workplace that is safe, efficient and productive. See from the definition above, the school should also have to implement a safety and health system in the school environment.<sup>2</sup>

School is one environment of the working that has the potential for accidents and illnesses due to the lack of knowledge of the students about the dangers arising from unsafe school environment. Countries like Australia have implemented safety and health system in the school environment with the purpose of the students to recognize the risk factors of accidents in schools so as to minimize the risk of accident , the students also have to report the accident risk factors that found to the teacher or staff in the school to be addressed by school.<sup>3</sup> Besides Australia, Hong Kong also has implemented a safety and health system school where one of the methods they use in implementing safety and health in schools through the provision of safety and health counseling to students at school.<sup>5</sup>

Knowledge of safety and health should be fostered so that the students will be able to apply in everyday life, especially when they are active. This is supported by Rachman in 2013 which stated that the implementation of safety and health in the learning process in schools will familiarize students to implement safety and health in the activity.<sup>5</sup> One way to increase students' knowledge is to intervene in the form of counseling.

Safety and health counseling in schools will make students understand the importance of safety and health at school, with the knowledge students have to identify risk factors for accidents at school so it can reduce the risk of accidents at school. Elementary school students are the age group who have the desire to constantly active because at that time the child has excess energy that is channeled through the activities. Often they got small or big accident when they play that sometimes cause panic for the school.

Children are vulnerable to accidents because they have limitations cognitive. In the elementary schools in Vancouver, British Columbia (Canada) injury rate of 2.8 per 100 children. The Vancouver study reported head injury rate of 1.8 per 100 children, whose injuries include bleeding at the nose, neck sprains, eye injury and concussion of 0.09 per 100 children. The results of the study in Boulder school, Colorado (USA). Obtained annual injury rate is very high at 9.2 per 100. While the main cause of injury in children from falls and for sports activities.

One cause of the accident was due to a lack of knowledge of the students about the importance of maintaining health and safety .Children in this elementary school often fail to perceive something good, even many children do not understand the concept of danger and not danger. Limited knowledge of children about the dangers lead to children less anticipation and cope with hazardous conditions that arise. This could be fatal for their safety. Because adults are not always located

near the kids, so it can not be optimally maintain and supervise children. One way to make children safe from harm is to increase the knowledge of the risk of harm and the ways to overcome the danger of a safety and health counseling in schools. This is supported by studies Sandy in 2012 where 70% of elementary school students are still not understand dangers that exist in the school and according to the 2005 study Sumargi one way to improve the knowledge of elementary school children about safety through safety education in the form of counseling. Counseling is one way of enhancing one's knowledge of a safety and health programs including schools.<sup>6</sup>

Qardhan Hasanah boarding school located on Jl. A. Yani miles 34 District of Banjarbaru. This school has an area of 1945.41 m<sup>2</sup>, having as many as 17 teachers and 331 students in total. The number of sixth grade students by 50 people. This school selected because Qardhan Hasanah boarding school can be an example in implementing safety and health in schools. Based on interviews with several students of class V, the problem that occurs is still a lack of knowledge of students' safety and health in schools. This is because there is no counseling on how to maintain the safety and health of themselves. This can be seen from there are still some students who slip due to slippery floor when just cleaned or wet condition when it is raining. Slip accident can be fatal if injured in the head, in addition to the student's behavior often hastily shoving that occurs between students or frequent running anytime that resulted in some students falling. The subjects were students of class V Qardhan Hasanah boarding school that in next year in sixth grade. Student in sixth Grade already understand about literacy therefore make it easier to be sampled in filling pre and posttest counseling once held about safety and health in school.<sup>7</sup>

Based on the background above, the authors are interested in researching the Effects of Counseling Occupational Safety and Health on Knowledge in sixth grade student Qardhan Hasanah boarding school.

## 2. RESEARCH METHODS

This study is a quasi experimental design Experimental with The Non-Equivalent Control Group. This design uses two groups, where the first and second group pretest and posttest given, but only one group is given the treatment (counseling). Where there are two groups that have similar properties but different treated samples grouping members of the control group and the experiment was not performed randomization. The difference in the posttest results of the group can be referred to as the effect of the intervention of treatment.<sup>8</sup>

The study population was all students of sixth grade Qardhan Hasanah boarding school. Samples were taken from a population of 50 students consisting of two classes, with a ratio of 25 students in the experimental group and 25 students in the control group. The sampling technique is totalitarianism sampling / quota/ purposive.<sup>9</sup>

Research instrument was a questionnaire safety and health knowledge with the number of items by 10 item valid and reliable questions, with 10 votes for the correct answer and 0 for a wrong answer. Questionnaires were administered to the experimental group and the control group.

Analysis of the data to effect the safety and health counseling in schools to knowledge by using different non-parametric test, because not normally distributed variables characterized by the Kolmogorov-Smirnov significance value (0.000) <0.05. Mann-Whitney test was conducted to determine differences in knowledge of safety and health control group and the experimental group at pre-test and posttest. Then the Wilcoxon test is also conducted to determine the effect of the safety and health counseling in schools on students' knowledge. Data processing results of the questionnaire used with statistical software

This hypothesis is Ha: There is the effect of counseling on occupational safety and health sixth grade student knowledge Qardhan Hasanah boarding school

## 3. RESULTS AND DISCUSSION

Based on the research results can be seen an increase in students' knowledge of samples after treatment group counseling health and safety, the following Table 1.

**Tabel 1. Pretest and Posttest Result**

No.	Sample Group		Control Group	
	Pretest	Posttest	Pretest	Posttest
1.	40	70	50	40
2.	50	70	50	50
3.	50	60	40	50
4.	70	80	50	60
5.	60	70	60	50
6.	50	80	40	40
7.	50	70	50	50

No.	Sample Group		Control Group	
	Pretest	Posttest	Pretest	Posttest
8	60	70	60	50
9.	50	70	30	40
10.	40	80	50	40
11.	60	80	60	50
12.	70	70	40	40
13.	70	80	50	50
14.	60	80	60	60
15.	50	70	50	50
16.	60	90	60	60
17.	40	80	40	50
18.	30	70	40	40
19.	50	90	50	40
20	40	80	50	50
21.	50	70	40	40
22.	60	80	70	60
23.	50	90	50	50
24.	40	70	40	30
25.	50	80	50	50

Based on Table 2 Mann-Whitney test score of pre-test and posttest knowledge in the control group and the experimental group, the results showed that the pretest scores no significant difference of knowledge of safety and health of students in the control group and the experimental group. It is characterized by significance value of  $0.449 > 0.05$ . Thus it can be interpreted that provision of counseling prior to treatment safety and health neighbor school there was no significant difference in knowledge of students in the control group or the experimental group.

**Table 2. Mann-Whitney test Control and experiment group.**

	Pretest	Posttest
Mann-Whitney U	275.500	20.000
Wilcoxon W	600.500	345.000
Z	-.756	-5.839
Asymp. Sig. (2-tailed)	.449	.000

a. Grouping Variable: Sample Group

Then from Table 1 can also be explained that there are significant differences posttest scores of knowledge of safety and health schools in the control group with the experimental group. It can be seen from the significance value  $0.000 < 0.05$ . Thus there are differences in knowledge of safety and health school in the experimental group or the group treated in the form of counseling. To support these results, the Wilcoxon test is also conducted with the following results

**Table 3. Wilcoxon Experiment Group**

	Posttest - Pretest
Z	-4.483 <sup>a</sup>
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

Based on the results table Wilcoxon test scores of pre-test and posttest experimental group obtained a significance value  $0.000 < 0.05$ . This may imply that there is the effect of treatment in the form of safety and health counseling to the school students' knowledge. These results support the results of previous tests, namely the Mann-Whitney test is also stated that there are differences in posttest scores that were sampled in the experiment group. Thus it can be stated that  $H_a$  is accepted.

At the time of students knowledge measurement at the beginning of the study (pretest) mostly elementary school students still do not understand about how to maintain the safety and health of themselves so as to avoid accidents and occupational diseases caused in the school environment as well as to identify risk factors associated with workplace accidents. Therefore, knowledge of safety and health should inculcate early.

One way to improve the knowledge of elementary school students about safety and health in schools is through counseling.<sup>10</sup> Extension is one way to increase one's knowledge.<sup>10,11</sup> Counseling is one way to increase somebody knowledge. Counseling is provided in the form of matter about the safety and health of the students' school proved to increase the student's knowledge. This is supported by research Hasanah in 2010 in which an increase in knowledge before and after counseling and occupational health safety (OHS) on batik crafters.<sup>12</sup>

In the 1990s, WHO issued a kind of declaration called "Health Promoting School" or health-minded school, or often translated "Health Promoting Schools". Of the WHO declaration can be concluded that the school environment is essential for the safety and comfort is maintained as well as health, so we need a health and safety efforts in schools to protect students, teachers and the entire staff from the risk of accidents and occupational diseases.<sup>3</sup> The physical environment of the school buildings and playing fields is a key factor for the health and safety of the whole school staff. It requires adequate infrastructure. Location of school buildings should be protected from pollution. Industrial development, bus terminals, highways and shopping centers within the supposedly safe enough from school.

#### **4. CONCLUSION**

Based on the results and discussion that has been described previously acquired to the conclusion that the safety and health counseling influence to student knowledge

#### **5. LIMITATION OF RESEARCH**

Researchers find it difficult to ensure that the increase of knowledge by student due to the school occupational health and safety counseling or not.

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