



**EFFECT OF DISASTER EMERGENCY RESPONSE EDUCATION ON KNOWLEDGE,
ATTITUDE, PRACTICE, AMONG ISLAMIC BOARDING SCHOOL STUDENTS**

Hamdy Alallah¹, Hanifa Maher Denny², Suroto³

¹Master Student of Health Promotion Program, ²Faculty of Public
Health, Diponegoro University, Semarang, Indonesia

Email : Hams11488@gmail.com

Article details:

Received: 17th September, 2019

Revision: 20th September, 2019

Accepted: 23th September, 2019

Published: 22th October, 2019



ABSTRACT

Natural disasters such as earthquake, tsunami, and flood can often come at the least expected time. It causes injury, death, loss of livestock, property damage, and economic loss. School should be prepared to handle them safely and effectively by giving information about disaster emergency response.

This study aimed to determine the effect of disaster emergency response education

on knowledge, attitude, practice, among Islamic boarding school students. This study was a quasi-experiment with one group pre-test and post-test design. This study was conducted at an Islamic boarding school, Semarang, Central Java. A total of 67 students was selected for this study. The independent variable was disaster emergency response education. The dependent variables were knowledge, attitude, and practice. The data were collected by questionnaire and analyzed by Wilcoxon.

Result of this study was knowledge significant ($p: 0.001$; $\alpha: < 0.05$), attitude significant ($p: 0.001$; $\alpha: < 0.05$), and practice significant ($p: 0.001$; $\alpha: < 0.05$). on disaster emergency response increased after disaster emergency response education, and they were statistically significant.

The conclusion was disaster emergency response education enhances knowledge, attitude, and practice on disaster emergency response.

Keywords: Education, disaster emergency response, knowledge, attitude, practice

To cite this article:

Hamdy Alallah, Hanifa Maher Denny, S. (2019). Effect Of Disaster Emergency Response Education On Knowledge, Attitude, Practice, Among Islamic Boarding School Students. *The International Journal of Health, Education and Social (IJHES)*, 2(10), 1–8.



Introduction

Indonesia is a disaster-prone area. There are 12 types of disasters classified in geological disasters (earthquakes, tsunamis, volcanoes, ground movements / landslides), hydrometeorological disasters (floods, flash floods, drought, extreme weather, extreme waves, forest and land fires), and anthropogenic disasters (epidemics of disease outbreaks and failed technology-industrial accidents).

Based on data from the National Disaster Management Agency (BNPB), over the last 30 years (1982-2014) in Indonesia there were 13,729 disasters, dominated by floods and followed by landslides, strong winds, droughts and other disasters. The disaster that took the most lives was an earthquake followed by a tsunami (resulting in 174,101 people died), an earthquake (15,250 people died), floods and landslides (7,555 people died) and other disasters (28,603 people). These complex and challenging conditions are complicated by the impact of climate differences caused by environmental damage. Climate differences will continue to have a significant impact on humanitarian program interventions and development programs and will continue to provide challenges for the development and implementation of the education sector (Kemendikbud, 2015).

From the data listed in the 2013 Indonesian Disaster Risk Index (IRBI 2013) released by BNPB, there are 80% of Indonesia's territory at high risk of disaster, covering 205 million people exposed to disaster risk with 107 million of whom are school age children. From the consideration of disaster risk and the extent of exposure, integrated, synchronous and synergistic efforts between Ministries / Institutions, communities and the business world are needed to prevent disaster risk, strengthen the capacity of institutions and communities, reduce the impact of disasters, prepare communities, ensure early warning systems, and strengthen emergency response and recovery capabilities. The Government of Indonesia has enacted Law Number 24 of 2007 concerning disaster management. The law clearly states that everyone has the right to receive education, training, counseling, and skills in carrying out disaster management, both in situations where no disaster occurs and situations where disasters occur. Through education it is



hoped that disaster risk reduction efforts can achieve broader targets and can be introduced earlier to students, both for public schools and boarding schools (BNPB, 2013)

Islamic Boarding School is a place for students (students) to study and live in the boarding school for 24 hours straight. Learning material in Islamic boarding schools consists of only Islamic religious subjects or combined with general education. Islamic boarding schools in Indonesia have a very large role, both for the advancement of Islamic education itself and for the Indonesian people as a whole. Database of Islamic Boarding School data issued by the Ministry of Religion in Indonesia there are 25,938 Islamic boarding schools with a total number of santri reaching 3,962,700 people, for Central Java Province there are 4400 Islamic boarding schools and for Semarang area there are 173 registered boarding schools (UU RI, 2007).

There are cases in terms of occupational safety and health in the boarding school environment, such as the fire disaster. Cases of fire that occurred at the Darul Quran Ittifaqiyah Islamic boarding school in Kuala Lumpur Malaysia with 25 victims, 23 students and 2 religious teachers on September 14, 2017 (<https://www.bbc.com/indonesia/dunia-41426989>, cited 2009 Feb 20). The case of a boarding school fire had occurred in the same foundation in another city, a fire disaster occurred on 4 October 2013 occurred because one of the students burned a used mattress, material losses in the form of a daqu mart building, stall, 6 classrooms, and some space for storage santri band drum set (<https://www.republika.co.id/berita/dunia-islam/islam-nusantara/16/01/08/o0l63b394-pesantren-darul-quran-terbakar-satu-santri-tewas>, cited 2016 Jul 5)

In Article 2 of Law No. 1 of 1970, reads "Safety of work in all workplaces, whether on land, on land, on the surface of water, in water or in the air, which is within the jurisdiction of the Republic of Indonesia (UU RI, 1970). In the Joint Decree of the Minister of Health No. 1067 of 2002 concerning health improvement in Islamic boarding schools and other religious institutions, decided to develop the health service system in Islamic boarding schools or other religious institutions (Kesehatan, 2002).

Based on research conducted by Andri Nurudin, it was stated that there was an increase in the level of preparedness of students in facing an earthquake after a disaster management training



was conducted. The results of these studies can be concluded that there are significant differences between the experimental group and the control group (Andri, 2015)

Fika Nur Indriasari's research also showed that after an earthquake disaster simulation was conducted on elementary school students in Yogyakarta there was a significant influence between before and after the simulation. After a simulation of preparedness to face an earthquake disaster increased (Indriasari, 2016).

Based on preliminary surveys conducted by researchers at boarding school X, researchers did not find any evacuation routes, did not find any disaster management, found the lack of knowledge of students against disasters, found the lack of small fire extinguishers, and found the potential for disasters such as landslides, earthquakes, tornadoes and fires. These problems need to be done in the form of educational solutions to improve students' knowledge, attitudes, and practices in disaster response with health promotion media. Knowledge, attitudes and good practices are expected by students to be ready to face disasters and be able to prevent them. The causes of disasters, such as illness, disability, loss of life, and material losses can be prevented or most minimized.

Based on the description above, the researcher wants to conduct a research on how big the impact of providing emergency response education using health promotion media in the form of presentations, training, books, posters, films, evacuation maps, and safety signs on the knowledge, attitudes and practices of students in Islamic boarding schools X in Semarang.

Methods

This type of research is quantitative research and the research design used is One group pretest posttest design, measurements are carried out before and after the intervention. The measurement results are then compared (the measurement results before the intervention are compared with the measurement results after the intervention). The population in this study were male students with a total of 233 students in boarding school X Semarang regency. The sample selection in the study was carried out stratified, X boarding schools have 3 junior high classes, namely 7th, 8th and 9th grade, where the sample is selected in several classes, each class there are 20-27 students, the total sampling for this study was 67 students. Bivariate analysis aims to



determine differences in a variable. Bivariate analysis used is Wilcoxon test to determine differences in knowledge, attitudes, and practices before and after the intervention in the form of education. Wilcoxon test uses SPSS version 23 statistical application.

Results

From the results of the study found the respondents have the same sex, education level, which makes the difference in class and age of respondents, of all respondents average age of 13 years, see table 1

Table 1 Distribution of age Frequency of Respondents

Age	Amount	Percentage (%)
11	1	1,48
12	19	28,36
13	17	25,37
14	23	34,33
15	7	10,45
Amount	67	100

The number of respondents seen from the difference in class vii was most followed by class ix and then class viii, see table 2

Table 2 Frequency Distribution of Respondent classes

Class	Amount	Percentage (%)
7	26	38,80
8	19	28,36
9	22	32,84
Amount	67	100

The results of the study show that the total value, average value, and measurement variables of the categories both increased, the results of the statistical analysis that the impact of emergency response education on differences in knowledge of disaster emergency response is p value = 0.001 which means that it has a significant difference, the impact of education response emergency response to differences in attitude of disaster emergency response that is p value = 0.001 which means it has a significant difference, and the impact of emergency response education on the practice of disaster emergency response is p value = 0.001 which means it has a significant difference see table 3



Table 3 Results of Analysis of Pretest and Posttest Respondents

Variabel	Pretest			Postes			P-value
	Amount	Average	Well Category	Amount	Average	Well Category	
Knowledge	556	8.30	52,24%	626	9.34	89,55%	< 0.001
Attitude	580	8.66	52,24%	643	9.60	94,03%	< 0.001
Practice	618	9.22	43,28%	729	10.88	97,01%	< 0.001

Discussion

The results of this study indicate that respondent's knowledge of disaster emergency response before and after the education was carried out differences occur. The total and average values, with a total value of 556 and a mean value of 8.30 being a total value of 626 with a mean value of 9.34. The knowledge of respondents prior to the education which had a good category of 35 respondents or 52.24% going up to 60 or 89.55% after the education. Judging from the Wilcoxon test results asymp. Sign or p-value is 0.001 or below <0.05, from this result there is a significant difference in respondent's knowledge. Emergency response education with printed and electronic media promotion media in the form of presentations, training, books, posters, films, evacuation maps, and safety signs is effective in increasing respondents' knowledge.

The results of this study indicate that the attitudes of respondents regarding disaster emergency response before and after the education was carried out differences occur. The total and average values are the total value of 580 and the mean value of 8.66 being a total value of 643 with a mean value of 9.60. the attitude of the respondent before education was carried out either in the category of 35 respondents or 52.24% going up to 63 respondents or 94.03% after the education. Judging from the Wilcoxon test results the p-value is 0.001 or below <0.05, from these results indicate there are significant differences in the attitudes of respondents. Emergency response education with printed and electronic media promotion media in the form of presentations, training, books, posters, films, evacuation maps, and safety signs is effective in improving respondents' attitudes.



The results of this study indicate that the respondent's practice of disaster emergency response before and after the education was carried out differences occur. The total and average values are the total value of 680 and the mean value 9.22 to a total value of 729 with a mean value of 10.88. The respondent's practice before education which was categorized as good as 29 respondents or 43.28% going up to 65 respondents or 97.01% after the education. Judging from the Wilcoxon test results the p-value is 0.001 or below <0.05 , this result shows that there are significant differences in the respondents' practices. Emergency response education with printed and electronic media promotion media in the form of presentations, training, books, posters, films, evacuation maps, and safety signs is effective in improving respondent practices.

The stimulus in the form of education consisting of presentations, simulations, giving books, installing posters, making evacuation maps, safety signs and gathering points, educational video playback has the advantages of print media such as durable, includes many people, costs are not high, does not need electricity, can be carried everywhere, can bring up a sense of beauty, facilitate understanding, and increase passion for learning, and the advantages of electronic media as it is known to the public, include all five senses, easier to understand, more interesting because there are sound and moving images, face to face, presentation can be controlled , relatively greater reach, and as a discussion tool and can be repeated (NS, 2005).

The strengths and results of this study are that the stimulus in the form of an emergency response education media is significantly effective in increasing respondents' knowledge, attitudes and practices.

Conclusion and Recommendation

From the results of the research conducted, it can be concluded that there are differences in terms of total, average, good categories and significant differences between knowledge, attitudes and practices about disaster emergency response before and after disaster emergency education education. To improve information about disaster emergency response, boarding schools must provide education on disaster response to all boarding school community members to create conditions that are prepared to be prepared when a disaster occurs.



References

- Kemendikbud. Modul 1 Pilar 1 Safe School Facilities. In: Safe School Facilities. Jakarta; 2015.
- BNPB. Indonesian Disaster Data 2013. Jakarta; 2013.
- Indonesia R. LAWS OF THE REPUBLIC INDONESIA NUMBER 24 YEAR 2007. Jakarta; 2007. 245 p.
- News B. Two were charged in a Malaysian pesantren fire which caused 23 santri to die [Internet]. 2017 [cited 2019 Feb 20]. Available from: <https://www.bbc.com/indonesia/dunia-41426989>
- Www.republika.co.id. Darul Qur'an Islamic Boarding School Burned, One Santri Killed [Internet]. 2016 [cited 2016 Jul 5]. Available from: <https://www.republika.co.id/berita/dunia-islam/islam-nusantara/16/01/08/o0l63b394-pesantren-darul-quran-terbakar-satu-santri-tewas>
- Negara S. UU. No 1 year 1970 about work safety. No Title. 1970.
- Kesehatan M. SKB number 1067 year 2002 about health improvement in Islamic boarding schools and other religious institutions. 2002.
- Andri N. Effect of earthquake disaster management training on class VII preparedness in junior high school 1 Imogiri Bantul Yogyakarta. 2015;
- Indriasari FN. The Effect of Provision of Earthquake Disaster Simulation Method on Children Preparedness in Yogyakarta. 2016;11(1):53–61.
- N S. Health Promotion Theory and Its Applications. Jakarta: PT. Rineka Cipta; 2005.