



The Effectiveness of Health Education with Flip Chart Media on Student's Knowledge of Basic Sanitation for Islamic Boarding Schools

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Article Info

Article History:
Submitted 19 November 2020
Accepted 01 August 2021
Published 30 April 2022

Keywords:

Basic Sanitation; Flip Charts;
Knowledge; Students;
Islamic boarding school

DOI

<https://doi.org/10.15294/jhe.v7i1.42715>


Abstract

Background: Islamic boarding school sanitation is a public health effort that focuses on monitoring the physical structure, where people use it as a shelter which affects the degree of human health. If monitoring activities are not carried out at the Islamic Boarding School, it can increase the risk or the emergence of a disease, such as diarrhea, ARI, and scabies. Based on a preliminary survey conducted at Raudlatuth Thullab Islamic Boarding School, the sanitation inspection activity obtained a score of 1,950, which means that sanitation problems are still found at the Islamic Boarding School. The standard score that meets the requirements for Islamic boarding schools is in the range of 2,130 - 3,550. The purpose of this study was to analyze the effectiveness of health education using flip chart media on increasing students' knowledge about basic sanitation at Islamic boarding schools.

Methods: This research is a type of pre-experimental research with a one-group pretest-posttest design. The number of samples in this study was 32 students who lived in Raudlatuth Thullab Islamic Boarding School.

Results: The results of this study indicate that Health Promotion using flip chart media is effective in increasing students' knowledge about basic sanitation at Raudlatuth Thullab Islamic Boarding School.

Conclusions: Health Promotion using flip chart media has a role in increasing students' knowledge of Islamic boarding school basic sanitation, so it is hoped that proper basic sanitation can reduce the incidence of infectious diseases in Islamic boarding schools.

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INTRODUCTION

Environmental health efforts are public health efforts that focus on monitoring various environmental factors that can affect the degree of human health. According to Juli Soemirat Slamet (2013), environmental sanitation facilities include ventilation, temperature, humidity, residential density, natural lighting, building construction, waste disposal facilities, human waste disposal facilities, and clean water supply. Maintenance of environmental sanitation in residences or dormitories can be done by cleaning windows or furniture, washing eating utensils, cleaning rooms, and taking out the trash. Environmental sanitation needs to be maintained starting from the yard, sewerage and roads. The source of clean water used must meet the standards, and be colourless, odorless, and tasteless (Mayrona, Subchan, & Widodo, 2018).

Islamic boarding schools, apart from being known as a place for students to study the Islamic religion, are also known as public places that often have problems with sanitation aspect. Various environmental-based diseases that are often a problem in Islamic boarding schools are scabies, diarrhea, and ARI. Environmental sanitation efforts in Islamic boarding schools are an effort to control or supervise factors that can interfere with physical development, health, and human survival caused by activities in Islamic boarding schools (Adriansyah, 2017).

Sanitation conditions in Islamic boarding schools will be closely related to infectious environmental-based morbidity rates. Therefore, the sanitation of Islamic boarding schools must meet health requirements in the sense of protecting, maintaining and improving the health status of the community. If no monitoring activities are carried out at the Islamic Boarding School, it can increase the risk of the emergence of a disease that can cause harm to the community (Candra Budiman, 2013). One of the efforts to maintain sanitary conditions in the Islamic boarding school environment can be done is to carrying out sanitation inspections.

Sanitation inspection is a physical observation of environmental media, environmental media measurement, and environmental health risk analysis. Where

the inspection is carried out based on health surveillance which shows a tendency to develop or expand the disease accompanied by the incidence of illness due to environmental factors (Ministry of Health, 2015). Studies on Islamic boarding school sanitation show that three main aspects are examined in the context of pesantren sanitation, namely the environment, buildings, and sanitation facilities. The study of these three aspects in the sanitary studies of Islamic boarding schools is intended to describe whether the environment, buildings and sanitation facilities in Islamic boarding schools have met the health requirements or vice versa the three aspects have not met the health requirements (Fahham, Achmad M, 2019). A healthy environment will be related to the health status of individuals and the surrounding community (Ashar, 2020). The results of Ridwan's research (2017) show that personal hygiene is good for students, so the possibility of scabies is small because scabies is easily transmitted to students who have poor personal hygiene.

Based on a preliminary survey conducted at Raudlatuth Thullab Islamic Boarding School through sanitation inspection activities, a score of 1,950 was obtained, which means that sanitation problems were still found at the Islamic Boarding School. The standard score that meets the requirements for Islamic boarding schools is in the range of 2,130 - 3,550. This boarding school inspection refers to Blum's theory with the criteria assessed are environment and behavior while the criteria for health services and offspring are ignored. In environmental and behavioral assessments, the assessed include construction, sanitation facilities, location, supporting facilities, and others (Santoso, Imam, 2015).

The results of interviews in the preliminary study show that there are still many students who do not know about basic sanitation. Of the 10 students who were interviewed, 7 students (70%) of them had a low basic sanitation knowledge score. Therefore, it is necessary to increase students' knowledge about the basic sanitation of Islamic boarding schools so that students have awareness of clean and healthy living behavior in Islamic boarding schools.

The optimal level of health for the students can be obtained through a comprehensive health program by implementing health promotion strategies (Suiraoaka & Supariasa, 2012). Of course, in the success of a health promotion method and media promotion plays a very important role and can be interpreted as a means to facilitate communication and dissemination of information. (Dinas Kesehatan Sleman, 2012).

From the problems in the background, it encourages researchers to research the increase students' knowledge about basic sanitation at Raudlatuth Thullab Islamic Boarding School using the lecture method with flip chart media.

METHODS

This research is a type of pre-experimental research with One group pretest-posttest design. This method is used because it is most appropriate to reveal the problems that exist in this study, namely the low knowledge of students about basic sanitation.

The research process starting from the pretest, giving the intervention, and the posttest was carried out in August 2020. The students who were respondents in this study were given a questionnaire containing questions about basic sanitation knowledge, before being given the intervention.

The intervention process was carried out for 2 hours for the students. In addition to the delivery carried out by researchers using flip chart media, discussions and questions and answers were also held with the students during the intervention process, so that the information provided was easier for students to understand.

The post-test was carried out on the same day after the intervention process was completed. The hope is that the students can get a higher score if it is done quickly after the intervention process. The sequence of this research process can be described in the image below (Sugiyono, 2015):

Pretest	Treatment	Posttest
T1	X	T2

Information:

T1: Before being given a lecture method with flip chart media

X : Treatment is in the form of a lecture method with flip chart media

T2: After being given the lecture method with flip chart media

The Raudhlatuth Thullab Islamic Boarding School is located in Rembang District, Rembang Regency, Central Java. The total number of students is 39 students. However, because the research was conducted during a pandemic, not all students were present during the research process. So only 32 students were respondents when the research was carried out.

The flip chart media in this study consisted of 15 full-color pages containing basic sanitation of Islamic boarding schools. The flip chart contains information on the provision of clean water that must be in an Islamic boarding school, the provision of latrines that comply with health standards, waste management that must be in a boarding school and waste management resulting from activities from Islamic boarding schools. The media that was created was then validated by media experts and material experts from the Kudus District Health Office. The aspects validated by media experts and material experts include the quality of content, language, implementation, visual appearance, image display, and user convenience. The results of expert validation show that the highest score is in the aspect of content and visual quality with a score of 95, while the lowest score is 85 in the aspects of implementation, image and user ease.

RESULTS AND DISCUSSIONS

Characteristics of Respondents

The subjects in this study were Raudlatut Thullab Islamic boarding school students. Based on the results of the study, it is known that some of the characteristics of the respondents include characteristics based on age, gender, and characteristics of respondents based on the length of time they have been students. The following is a table of the frequency distribution of respondents based on age, gender, and length of time as students:

Table 1. Frequency Distribution of Respondents based on Age, Gender, and Length of Being a Student

Respondent's Characteristic	frequency	(%)
Age (years old)		
< 15	3	9,4
16-20	19	59,4
> 20	10	31,2
Total	32	100
Gender		
Male	20	62,5
Female	12	37,5
Total	32	100
Length of Being a Student (years)		
< 1	5	15,6
1-5	20	62,5
>5	7	21,9
Total	32	100

Based on the table, it is known that the most age characteristics are in the age range of 16-20 years, which is 59.4%. The gender characteristics are dominated by the male sex, which is equal to 62.5% and for the female sex group, it is 37.5%. Meanwhile, based on the characteristics of the length of time being a student, it is known that the group with the most time being a student for 1-5 years at 62.5%.

The age range of 16-20 years is included in the adolescent age range (BKKBN, 2014). This is suitable to the capacity and development of adolescents, which are expected to be able to become health agents in Islamic boarding schools. Aminjati (2013) states that one of the factors that influence a person's knowledge is age. So health education given to adult students is more effective than health education given to children because the ability to think and receive information at an adult age can already receive and digest the information obtained. As stated the purpose of the establishment of Pos Kesehatan Pondok Pesantren (POSKESTREN) / Islamic Boarding School Health Post to realize the independence of Islamic boarding school residents and the surrounding community in practising Clean and Healthy Living (Kemenkes, 2015).

The main variable being studied in this study is the knowledge of students about basic

sanitation in Islamic boarding schools. The environmental sanitation of Islamic boarding schools that is seen consists of providing clean water, providing healthy latrines, managing waste, and managing household waste. The analysis process is carried out by adding up all the values of each of these components so that the analysis results are obtained as shown below. The following is the value of the results of students' knowledge about basic sanitation in Islamic boarding schools.

Table 2. Frequency Distribution of Knowledge Values Respondents Pre Test and Post Test about Basic Sanitation of Islamic Boarding Schools (n=32)

Value	Mean	Deviation Std.	Max	Min	Difference Pre and post
Pre Test	9,53	1.135	12	7	
Post Test	16,25	1.107	17	14	39,52%

Based on the table above, it is known that there is an average value of knowledge pretest of 9.53 with a minimum value of 7 and a maximum value of 12. In the post-test, it is 16.25 with a minimum value of 14 and a maximum of 17 with the difference between the pretest and post-test being 39.52%.

The increase in respondents' knowledge from the pretest to the posttest was influenced by several factors, including the lecture method and media/tools in the form of a Flip Chart for the Basic Sanitation of Islamic Boarding Schools that were given to respondents. In accordance with its purpose, the lecture method facility accompanied by basic sanitation Flip Chart media is expected to be a source of information for respondents and as a guide for self-study when carrying out basic sanitation activities in Islamic boarding schools.

Differences in Knowledge Scores Before and After Intervention

Based on the results of the study, it is known that the data scale in this study is interval, so the first step in the bivariate analysis is to test the normality of the data for each research variable. The results of the data normality test can be seen in the following table:

Table 3 Bivariate Analysis Result

Variable	Data Normality Test		Wilcoxon Test	
	<i>P-Value</i>	Description	<i>P-Value</i>	Description
Pre Test Score	0,041	Abnormal Data Distribution	0,0001	There is a significant difference
Post Test Score	0,001	Abnormal Data Distribution		

Based on the results of the normality test of the data, it is known that for the pretest and post-test values of the respondents' knowledge, it is known that the results are not normally distributed. Thus, the bivariate analysis used to determine the difference between the scores before and after is the Wilcoxon test.

Based on table 4 the results of the bivariate analysis, it is known that the p-value of the Wilcoxon test for the knowledge variable is 0.0001, meaning that there is a difference between the value of knowledge before and after being given intervention in the form of a lecture method on basic sanitation accompanied by flip chart media.

The result of the p-value on the Wilcoxon test is 0.0001 so it can be concluded that the intervention of the lecture method with flip chart media is effective in increasing the knowledge of students about the basic sanitation of Islamic boarding schools. In line with the research conducted by Bagaray, Wowor, & Mintjelungan (2016) that research using the booklet and flip chart media is equally effective in increasing the knowledge of dental and oral health of children at SDN 126 Manado (Bagaray et al., 2016). Another study conducted by Fitriani (2015) with the title the effect of nutrition flip chart media on increasing the knowledge of mothers under five with malnutrition at the Pamulang Health Center obtained results if Health Promotion using flipchart media there was a significant difference in the knowledge of mothers of toddlers with nutrition. less before and after being given Health Promotion (Fitriani, 2015). In the research conducted by Dewi, et al, it was found that the booklet media affected increasing students' knowledge and attitudes (Dewi & Wahyuningsih, 2018).

The results of this study confirm the results of previous studies that the use of effective methods and media can increase knowledge. This can happen because there is

a good closeness between the researcher and the respondents so that the atmosphere of providing information about basic sanitation of Islamic boarding schools with the lecture method with flip charts can be absorbed more optimally. The closeness between the researcher and the respondent can be built well because the number of participants in one group is small, consisting of only 10-12 respondents.

The selection and use of media are important components. The five senses that transmit knowledge to the brain are the eyes (approximately 75% to 87%), while 13% to 25%, of human knowledge, is obtained and transmitted through the other five senses (Maulana, n.d.). The selection of the lecture method and flip chart media as health education media was well received by the respondents. This media offers Health Promotion that is more interesting and not monotonous. The media greatly influences an extension because it helps in delivering material and helps to demonstrate something that the instructor wants to convey (Notoatmodjo, 2014). Another opinion about an extension is that the success of an extension depends on the method and media (Supariasa & Nyoman, 2012). The existence of health education and health promotion media can improve respondents' actions so that they can always behave in a clean and healthy life (Daulian, Fika, 2016).

CONCLUSION

There is an increase in knowledge scores on the pre-test and on the post-test, with a difference in the increase of 26.78%. This means that the lecture method with flip chart media is effective in increasing respondents' knowledge about the basic sanitation of Islamic boarding schools. In the Wilcoxon test, it is known that the p-value is 0.0001 which can be concluded that there is a significant difference between the pretest and post-test

values. So that the suggestions on the results of this study are expected to be an alternative for health promotion in the Islamic boarding school environment to overcome the problems of basic sanitation of Islamic boarding schools and diseases that arise due to poor sanitation in the Islamic boarding school environment.

ACKNOWLEDGMENT

Submitted to Kemenristekbrin for the funding of the Beginner Lecturer Research grant

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