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THE EFFECT OF HEALTH EDUCATION ON THE LEVEL OF KNOWLEDGE, ATTITUDE AND BEHAVIOR IN COVID-19 PREVENTION IN MA STUDENTS IN MAGELANG DISTRICT

Diky Agus Bintoro¹⁾ Moh Hanafi²⁾ Moh Ridwan²⁾ Sunarko²⁾
dikyagus6670@gmail.com¹⁾ mohanafieuis@gmail.com²⁾

poltekkes kemenkes semarang

ABSTRACT

Introduction: Health education is the first level of prevention, even the first and foremost thing. Health education provided to school students will form awareness in preventing COVID-19. One of the factors that can influence prevention is knowledge. Students' knowledge about COVID-19 is still low so it needs attention. Health education about COVID-19 can increase students' knowledge so that they can make efforts to prevent COVID-19 transmission.

Methods: This research design uses a quasi-experimental design with a one group pretest-posttest design. The measuring instrument used is a questionnaire measuring knowledge, attitudes, and behavior about COVID-19. **Results:** There is an influence of health education on the level of knowledge, attitudes, and behavior in the Prevention of Coronavirus Disease 2019 (COVID- 19) in MA Students in Magelang Regency as proven by the Wilcoxon statistical test with a p value of 0.000 ($p < 0.05$).

Conclusion: For the nursing profession, which is authorized to provide health education, it will further improve counseling and vary in the delivery of health information so that it can generate student interest in preventive efforts.

Keyword : Health Education; Prevention; Knowledge; COVID-19.

¹⁾ Student of the Undergraduate Study Program in Applied Nursing
Magelang Poltekkes Kemenkes Semarang

²⁾ Lecturer of Nursing Magelang Poltekkes Kemenkes Semarang

Introduction. Health education is the first level of prevention and is even the first and foremost thing in the five levels of prevention concept (Induniasih & Ratna, 2019: 17). In addition to Health Education, Clean and Healthy Living Behavior (PHBS) is a behavior that is practiced on the basis of awareness as a result of learning to make a person or family able to help themselves, and play an active role in realizing the highest degree of health. (Aswadi, Syahrir, Delastara, & Surahmawati, 2017: 187). Maintaining personal hygiene is very important, efforts to maintain cleanliness to always stay healthy are by bathing regularly, always looking neat, taking care of teeth, wearing

clean clothes and washing hands using antiseptic soap (Halim & Soedirham, 2018: 209).

Indonesia began to be exposed to the corona virus reaching 172 people by bringing the number of deaths to 55 people on March 17, 2020 (Ministry of Health, 2020). Then it continued on March 31, 2020, increasing to 1,528 people, causing the death of 136 people (Setiati & Azwar, 2020: 85). The COVID-19 pandemic has now entered its second year. In the first quarter of 2021 it was discovered that the variants of the COVID-19 virus had mutated into multiple versions. Alpha, Delta, Gamma variants allow the virus to infect more effectively and efficiently (Assifa, 2021: 174).

COVID-19 is a variant of SARS or commonly called (SARS-Cov-2). Like other SARS variants, namely MERS, COVID-19 also attacks the human respiratory system (Lai, Shih, Ko, Tang, & Hsueh, 2020: 2). This virus is highly contagious. Transmission can be through droplets from an infected person transmitted directly from person to person or through objects that have been touched by these droplets.

Signs and symptoms of COVID-19 infection are cough, fever, fatigue, shortness of breath, and no appetite. This is different from influenza virus infection, the corona virus can multiply rapidly, causing severity, organ failure and even death. This health emergency occurs in patients who have a history of previous or comorbid illnesses (Mona, 2020: 117).

According to WHO, the age limit of 12-24 years is categorized as a teenager. Most of the respondents from the COVID-19 survey in Magelang Regency showed that 82.4 percent never used hand sanitizers, 9.80 percent rarely used them, only 24.76 percent of respondents used or always used hand sanitizers. The habit of washing hands for 20 seconds is only carried out by 33.22 percent of respondents in Magelang Regency.

14.21 percent admitted that they rarely wash their hands for 20 seconds and 52.57 percent never do it (Central Bureau of Statistics Magelang Regency, 2020: 13-14). This shows that there is still a lack of self-awareness in the application of preventing the transmission of COVID-19 with health protocols. School-age children are also in a very sensitive condition to stimuli so that they become easy to be guided, directed, and instilled good habits, including the habit of clean and healthy living behavior.

Steps to prevent transmission of the corona virus in the community are routinely cleaning hands with soap, using hand sanitizer, avoiding touching the face when hands are dirty, practicing proper coughing and sneezing etiquette, using a mask and maintaining a distance (at least 1 meter) (Jaji, 2020: 139).

From the above review, researchers are interested in researching because of the influence of research results, and interested in examining MA students in Magelang district, especially class X MA students, Yajri Payaman. Due to the observed phenomena and the results of preliminary studies, it shows that not a few students know about the COVID-19 disease in depth and attitudes and behaviors such as wearing masks, keeping a distance, washing hands are still not applied in daily life.

The purpose of this study was to determine the effect of health education on the level of knowledge, attitudes and behavior in the prevention of coronavirus disease 2019 (COVID-19) in MA students in Magelang Regency. In particular, this study also aims to determine the level of students' knowledge in preventing the transmission of COVID-19 before being given health education. Knowing the level of student knowledge in efforts to prevent transmission of COVID-19 after being given health education. Knowing the attitudes and behavior of students in an effort to prevent the transmission of COVID-19 before being given health education. Knowing the attitudes and behavior of students in an effort to prevent the transmission of COVID-19 after being given health education.

Methods. The population in this study were MA Yajri Payaman Magelang students sitting in class X with 161 students. Sampling in this research is using simple random sampling technique.

The type or method used in this study is a non-experimental quantitative research method, with this research design using a quasi-experimental one group pretest- posttest design. The measuring instrument used is a measurement, attitude, and behavior questionnaire about COVID-19.

Result and Discussion. This research was conducted at Madrasah Aliyah Yajri which is located in the Sirojul Mukhlisin 2 Islamic Boarding School complex located at Kalibening street no.64 Payaman, Secang District, Magelang Regency, Central Java Province. Consisting of science and social studies majors with a total number of 446 students, 299 female and 147 male students. The research

focused on students of class X, both science and social studies, totaling 161 students with a sample of 127 students. Of these, 127 students filled out the questionnaire.

The pretest and posttest measurements of knowledge levels were carried out on the same day. Treatment was in the form of giving leaflets and health education about COVID-19.

Table 1. Description of Knowledge Level Before Health Education is Given

Level Criteria Knowledge	Frequency (n=127)	Percentage (%)
Hight	24	18,90
High enough	103	81,90
Low	0	0
Very low	0	0
Total	127	100

In the table showing the data on the level of knowledge before being given health education, the results showed that the number of students who had high knowledge was 24 students (18.89%), quite high as many as 103 students (81.10%), low as many as 0 students (0%), and very low as many as 0 students (0%).

The level of knowledge in the prevention of covid-19 in students of MA Yajri Payaman, Magelang before being given health education. The level of knowledge before being given health education students did not know in depth about COVID-19 related to the symptoms, causes, methods of prevention, and how to overcome them.

Based on the results of a pretest study on MA Yajri Payaman, Magelang students, it showed that the level of knowledge in preventing COVID-19 was 103 people (81.10%) had a fairly high category of knowledge and 24 people (18.89%) had a high category of knowledge. The higher a person's level of knowledge, the higher the individual's ability to evaluate a material or object. This assessment will be the basis for someone to act.

Table 2. Description of Knowledge Levels After Health Education is Given

Level Criteria Knowledge	Frequency (n=127)	Percentage (%)
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Hight	122	96,06
High enough	5	3,94
Low	0	0
Very low	0	0
Total	127	100

In the table showing the data on the level of knowledge after being given health education, the results showed that the number of students who had high knowledge was 122 (96.06%), quite high as many as 5 students (3.39%), low as many as 0 students (0%) and very low as many as 0 students (0%).

The level of knowledge in the prevention of covid-19 in students of ma Yajri Payaman, Magelang after being given health education. The posttest was carried out after the respondent had finished working on the pretest questionnaire and had been given health education, this aims to determine whether or not there is an effect of health education on the level of student knowledge. The posttest results in this study showed that the level of knowledge in preventing COVID-19 as many as 5 people (3.39%) had a fairly high category of knowledge and 122 people (96.06%) had a high category of knowledge. After being given health education, students have started to know about COVID-19 related to the symptoms, causes, ways to prevent it, and how to overcome it. An increase in knowledge is caused by the delivery of information with appropriate leaflet media so that knowledge is increased.

Table 3, Distribution of the Average Frequency of Knowledge Level Results Before and After Health Education is given

The average level of knowledge before and after being given health education

Mean	Median	Modus	Minimum	Maksimum	Maksimum
Before	73,15	75	75	66	91
After	87,48	83	83	75	100

The table shows the average score before being given health education was 73.15 with the lowest score being 66 and the highest score being 91, and after being treated the average score was 87.48 with the lowest score being 75 and the highest score being 100.

The effect of health education on the level of knowledge in the prevention of covid-19 in MA Yajri Payaman, Magelang students

The results of this study indicate that there is an increase in students' knowledge after being given health education. The average score of knowledge before being given health education was 73.15 while after being given health education the average score was 87.48. The results of the Wilcoxon test for the level of knowledge obtained a p value of 0.000 ($p < 0.05$), meaning that health education had a significant influence on the level of knowledge of students.

Table 4. Overview of Attitudes Before Health Education is Given

Attitude Criteria	Frequency(n=127)	Percentage (%)
Good	115	90,55
Pretty good	12	9,45
Not good	0	0
Total	127	100

Pada tabel menunjukkan data sikap sebelum diberikan pendidikan kesehatan didapatkan hasil bahwa jumlah siswa yang memiliki sikap baik sebanyak 115 Siswa (90,55%), cukup baik sebanyak 12 Siswa (9,44%) dan kurang baik sebanyak 0 Siswa (0%).

Attitudes in preventing covid-19 for MA Yajri Payaman, Magelang students before being given health education

Based on the results of a pretest study on MA Yajri Payaman, Magelang students, 12 students (9.44%) had a fairly good attitude category and 115 (90.55%) students had a good attitude category.

Table 5. Overview of Attitudes After Health Education is Given

Attitude Criteria	Frequency(n=127)	Percentage (%)
Good	127	100
Pretty good	0	0
Not good	0	0
Total	127	100

In the table showing the attitude data after being given health education, it was found that the number of students who had a good attitude were 127 students (100%), 0 students were good enough (0%) and 0 students were not good enough (0%).

Attitudes in preventing covid-19 for MA Yajri Payaman, Magelang students after being given health education

The posttest was carried out after the respondent had finished working on the pretest questionnaire and had been given health education, this aims to determine whether or not there is an effect of health education on student attitudes.

The posttest results in this study showed that 127 people (100%) had a good attitude in preventing COVID-19. The attitude of students who were initially good will get better after receiving health education.

Table 6. Distribution of the Average Frequency of Attitude Results Before and After Health Education was given

Average attitude results before and after being given health education

	Mean	Median	Modes	Minimum	Maximum
Before	81,17	84	84	60	87
After	92,94	83	83	75	100

The table shows that the average score before being given health education was 81.17 with the lowest score being 60 and the highest score being 87, and after being treated the average score was 92.94 with the lowest score being 75 and the highest score getting is 100.

The influence of health education on attitudes in the prevention of covid-19 in MA YajriPayaman students, Magelang

The results of this study indicate that there is an increase in attitudes towards students after being given health education. The average attitude score before being given health education was 81.17 while after being given health education the average score was 92.94. The results of the Wilcoxon attitude test got a p value of 0.000 ($p < 0.05$), which means that health education has a significant influence on student attitudes.

Table 7. Description of Behavior Before Health Education is Given

Behavior Criteria	Frequency (n=127)	Percentage (%)
Good	121	95,27
Pretty good	6	4,73

Not good	0	0
Total	127	100

In the table showing behavioral data before being given health education, it was found that the number of students who behaved well were 121 students (95.27%), quite good as many as 6 students (4.72%) and less well as many as 0 students (0%).

Behavior in the prevention of covid-19 in MA Yajri Payaman, Magelang students before being given health education

Based on the results of a pretest study on MA Yajri Payaman, Magelang students, 6 people (4.72%) had a good enough category of behavior in preventing COVID-19 and 121 people (95.27%) had a good category.

Table 8. Description of Behavior After Health Education is Given

Behavior Criteria	Frequency (n=127)	Percentage (%)
Good	127	100
Pretty good	0	0
Not good	0	0
Total	127	100

In the table showing behavioral data after being given health education, it was found that the number of students who behaved well were 127 students (100%), quite good as many as 0 students (0%) and less well as many as 0 students (0%).

Behavior in preventing covid-19 in students of MA Yajri Payaman, Magelang after being given health education

The posttest was carried out after the respondent had finished working on the pretest questionnaire and had been given health education, this aims to determine whether or not there is an effect of health education on student behavior.

The posttest results in this study showed that the behavior in preventing COVID-19 as many as 127 people (100%) had a good category.

Behavioristic theory describes behavioral changes that can be observed, measured and assessed concretely. Change occurs through stimuli (stimulants) that cause a reactive relationship (response). The theory of behaviorists is better known as learning theory, because all human behavior is the result of learning. In learning theory, this is often

called psychological S-R, meaning that human behavior is controlled by rewards and reinforcement from the environment.

Table 9. Distribution of the Average Frequency of Behavioral Outcomes Before and After Health Education

Average behavioral outcomes before and after being given health education

	Mean	Median	Modes	Minimum	Maximum
Before	89,21	90	90	70	90
After	90,71	90	90	90	100

The table shows that the average score before being given health education was

89.21 with the lowest score being 70 and the highest score being 90, and after being treated the average score was 90.71 with the lowest score being 90 and the highest score being is 100.

The effect of health education on behavior in the prevention of covid-19 in MA Yajri Payaman students, Magelang

The results of this study indicate that there is an increase in student behavior after being given health education. The average score before being given health education was 89.21 while after being given health education the average score was 90.71. The results of the Wilcoxon attitude test obtained a p value of 0.000 ($p < 0.05$), which means that health education has a significant influence on student behavior.

Conclusion and Suggestions. Based on the results of the research and from the description of the discussion, it can be concluded that the influence of health education on the level of knowledge, attitudes, and behavior in preventing COVID-19 in Madrasah Aliyah students in Magelang Regency, as follows: The results show that the level of knowledge in preventing COVID-19 in

Before being given health education, 103 students (81.10%) had a fairly high category of knowledge and 24 students (18.89%) had a high category of knowledge. The results showed that the level of knowledge in preventing COVID-19 in students after being given health education was 5 students (3.39%) had a fairly high category of knowledge and 122 students (96.06%) had high category knowledge. There is an effect of health education on the level of knowledge in preventing COVID-19 in MA Yajri Payaman, Magelang students, p value is 0.000 ($p < 0.05$). The results showed that attitudes and behavior in preventing COVID-19 in students before being given

health education were 12 students (9.44%) had a fairly good attitude category and 115 students (90.55%) had a good attitude category. A total of 6 students (4.72%) have a fairly good behavior category and 121 students (95.27%) have a good behavior category. The results showed that attitudes and behavior in preventing COVID-19 in students after being given health education were 127 students (100%) who had a good attitude category. A total of 127 students (100%) have good behavior category. There is an effect of health education on attitudes in preventing COVID-19 in MA Yajri Payaman students, Magelang p value is 0.000 ($p < 0.05$) and there is an effect of health education on behavior in preventing COVID-19 in MA Yajri Payaman students, Magelang p value ie 0.000 ($p < 0.05$).

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