

Original Research Article: Quantitative Research

THE INFLUENCE OF HEALTH EDUCATION ON STRENGTHENING AND UNDERSTANDING COVID-19 ON STUDENT ANXIETY LEVEL

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Abstract

Background: Coronavirus disease (COVID-19) is an infectious disease caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV2) virus. In 2021 the government changes the learning system again to a face-to-face system so that students need to adapt again to carry out the face-to-face learning process wherein this condition students must be able to understand covid-19.

Objectives: This study was to determine the Effect of Health Education on Strengthening and Understanding Covid-19 on Anxiety Levels of Students at SMP Negeri 26 Malang City.

Methods: This study uses an analytical observation design with a Quasy Experiment approach. The population is 100 students and the sample is taken according to the inclusion and exclusion criteria, determined by a simple random sampling technique as many as 80 students. Collecting data using a questionnaire sheet instrument on anxiety levels using HARS (Hamilton Rating Scale for Anxiety) and providing health education treatment about Strengthening and Understanding Covid-19. Anxiety Level Results Students in the group before being given Health Education on Strengthening and Understanding Covid-19 had an average posttest score of 50.3, while after being given the treatment, they had a pretest average score of 70.48. The group experienced a decrease of 20.18. The analysis used is if the data is normally distributed, then Paired t-test parametric data analysis is used and if the data is not normally distributed then non-parametric data analysis is used in the form of Wilcoxon Matched-Pairs Signed-Ranks Test. The results of the analysis carried out that the data obtained were not normally distributed so that the Wilcoxon data test was carried out. The basis for decision-making is based on the 95% confidence level or = 0.05. If $p < 0.05$ then H_0 is rejected and H_1 is accepted.

Results: Based on the results of this study, there is an effect of Health Education on Strengthening and Understanding of Covid-19 on Students' Anxiety Levels at SMP Negeri 26 Malang City with an Asymp score. Sig. (2-tailed) = 0.000.

Conclusion: The results of this study, students at SMP Negeri 26 Malang City have knowledge and understanding about Covid-19 and the anxiety experienced by students have decreased.

Keywords: *Health Education, Anxiety Level, Junior High School 26th of Malang City.*

INTRODUCTION

Covid-19 is an infectious disease caused by a new type of virus that has never been identified in humans before. Covid-19 is a serious threat in Indonesia and even throughout the world, so it has been called a global pandemic. Every day the number of positive victims of Covid-19 continues to increase, attacking everyone regardless of gender and age (Wulandari et al., 2020). Policies issued to limit the spread of the Coronavirus have an impact on various fields throughout the world, especially in education (Herliandy, 2020).

The government, through the Ministry of Education and Culture and the Ministry of Religion of the Republic of Indonesia, has implemented a policy of studying and working from home since mid-March 2020. Learning that should be done face-to-face has turned into online learning (on the network). Online learning, online or distance learning aims to meet educational standards by utilizing information technology using computers or gadgets that are interconnected between educators and students through the use of such technology so that the teaching and learning process continues to be carried out properly (Pakpahan, 2020).

However, in 2021 the government will change the learning system again to a face-to-face system so that students need to adapt again to carry out the face-to-face learning process wherein this condition students must be able to understand covid-19. Adolescence is referred to as a period of transition or transition because there are growth, development, and biological and psychological changes. Biological changes are marked by the growth and development of primary sex, while psychological changes are characterized by changing attitudes, feelings, and emotions. This transitional period is dubbed a period full of storms and stress because it causes emotional upheaval, anxiety, and discomfort because the teenager is required to adapt and accept all the changes that occur (Bariyyah Hidayati & M.F., 2016). The Covid-19 that occurs will add to the storm and stress on teenagers, it can even cause anxiety. In

Indonesia, the number of anxieties continues to increase every year, it is estimated that 20% of the world's population and as many as 47.7% of adolescents feel anxious (Hasibuan & Riyandi, 2019).

Anxiety is a normal feeling that humans have because when they feel anxious, humans are made aware and reminded that there is a dangerous situation that threatens them. However, when anxiety that was normal and controllable turns into continuous and uncontrollable anxiety, that anxiety will interfere with daily activities (Dewi & Fauziah, 2018). Anxiety is a negative emotion that humans feel, the emergence of tense feelings and thoughts, usually accompanied by symptoms of a fast heartbeat, sweating, and shortness of breath. Anxiety is divided into four levels, namely mild anxiety, moderate anxiety, severe anxiety, and very severe anxiety. The level of anxiety felt by each individual is different, influenced by how the individual adapts and copes with situations that trigger anxiety (Lisa Mutiara Anissa, Suryani, 2018).

Based on a preliminary study conducted on April 28, 2021, it was found that at SMP Negeri 26 Malang City there were students who were worried about the presence of covid 19 because the school had entered and the face-to-face learning was carried out even though it was only done 1 week 2 times face-to-face in class. Many students do not understand the COVID-19 disease, starting from its understanding, ways of preventing and transmitting, and the impact of the Covid-19 disease. If students are not given an understanding of Covid-19, it will have an impact on the high number of Covid-19 cases at SMP Negeri 26 Malang City. Based on the description above, the researcher is interested in conducting research on the Effect of Health Education on Strengthening and Understanding of Covid-19 on the Anxiety Level of Students at SMP Negeri 26 Malang City.

METHODS

Study Design

The research design used was quasi-experimental. In the treatment group, it started with a pretest by giving an anxiety level questionnaire using HARS (Hamilton Rating Scale For Anxiety) and after giving the treatment it was measured again (posttest) in the group. This design aimed to determine the effect of Health Education's actions on Strengthening and Understanding Covid-19 in groups with Student Anxiety Levels.

Setting

This research is located in SMP Negeri 26 Malang City at Jalan Ikan Gurami No. 36 Tunjungsekar Village, Lowokwaru Residency, Malang City. The research was conducted in August 2021.

Research Subject

Population is sampling based on certain predictions, such as population characteristics or previously known indicators (Notoatmodjo, 2010). The population in this study were students of class XIII SMP Negeri 26 Malang City. The research sample used simple random sampling. The research population was 100 students of class XIII SMP Negeri 26 Malang City with a total of 80 students who were recruited as research participants. Inclusion criteria include cooperative, agree to participate in learning, able to write and read. Exclusion criteria included students who were not present at the time of the study, and students who were sick.

Instruments

The instrument used in this study is a questionnaire about anxiety level (HARS (Hamilton Rating Scale for Anxiety) with an acceptable level of reliability score ($\alpha = .8$; Cronbach's alpha $> .6$). The questionnaire is valid with a value of validity test ($r = .987$; $r .05$).

Intervention

In the research process, the author explains the research itself from the beginning, after that the form of a sample that shows approval to be a research sample. The sample needed was then a questionnaire about anxiety level (HARS (Hamilton Rating Scale For Anxiety) with the Health Education Treatment on Strengthening and Understanding of Covid-19 given.

Data Analysis

Univariate analysis was used to see the frequency distribution by looking at the mean pretest and posttest. Bivariate analysis to determine the effect of independent variables on the dependent variable by using statistical tests used, namely if the data is normally distributed then paired t-test parametric data analysis is used and if the data is not normally distributed then non-parametric data analysis is used in the form of Wilcoxon matched-pairs Signed-Ranks Test. The results of the analysis carried out are that the data is not normally distributed so that the Wilcoxon data test is carried out with limits ($\alpha = 0.05$) or confidence interval (CI) = 95% which is processed using the SPSS program.

Ethical Consideration

This research was conducted by first asking permission from the Department of Education and Culture of Malang City and SMP Negeri 26 Malang City. At first, the researcher explained the sequence of the research, then the participants signed a letter of consent as research participants. Each participant who meets the criteria can fill out an anxiety level questionnaire using the HARS (Hamilton Rating Scale for Anxiety).

RESULTS

Characteristics of Respondents by Age and Gender

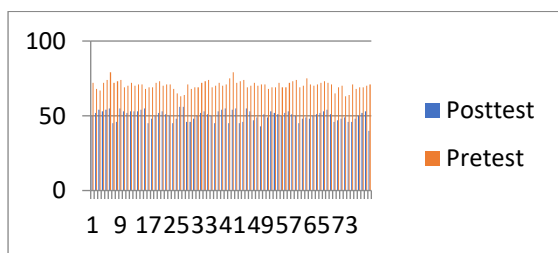
Table 1. Distribution Frequency of Respondents by Age and Gender in the Junior High School 26th, Malang City at Agustus 2021 (n=80).

Characteristics of Respondents	Frequency (f)	Percentage (%)
Age		
12 years	8	10.0
13 years	41	51.25
14 years	19	23.75
15 years	12	15.0
Total	80	100.0
Gender		
Male	40	50.0
Female	40	50.0
Total	80	100.0

Sources: Primary Data of Questionnaires, 2021.

Based on the results of the study, it found that most of the respondents aged 13 years were 41 respondents (51.25%) and the sexes of men and women were 40 (50%).

Examination of the Effect of Health Education on Strengthening and Understanding Covid-19 on Students' Anxiety Levels at SMP Negeri 26 Malang City using Wilcoxon Signed-Ranks



Sources: Primary Data of Questionnaires, 2021.

Figure 1. Data Distribution of Posttest and Pretest Differences in Groups at SMP Negeri 26 Malang in 2021.

Figure 1 showed that the Anxiety Level of students in the group before being given Health

Education on Strengthening and Understanding Covid-19 had an average posttest score of 50.3, while after being given Health Education on Strengthening and Understanding Covid-19 had an average pretest score of 70.48. The group experienced a decrease of 20.18.

Table 2. Results of Normality Test and Wilcoxon Test.

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statis tic	df	Sig.	Statis tic	df	Sig.
Pre_Test	.141	80	.000	.944	80	.002

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statis tic	df	Sig.	Statis tic	df	Sig.
Post_Test	.125	80	.003	.952	80	.005

	Wilcoxon Signed-Ranks	
	Post_Test - Pre_Test	
Z		-7.779 ^b
Asymp. Sig. (2-tailed)		.000

Sources: Primary Data of Questionnaire, 2021.

Based on the results data above showed that the average student anxiety level in children before and after the Health Education treatment on Strengthening and Understanding of Covid-19 uses a significance level of 5% (0.05). Before the Wilcoxon statistical test, the normality test was first performed. The results of the normality test showed that the pretest and posttest data were not normal with results >0.05, so the Wilcoxon test with Asymp results was carried out. Sig. (2-tailed) is 0.000. So, it can be concluded that there is acceptance of H1 which means that the provision of Health Education treatment regarding the

Strengthening and Understanding of Covid-19 can have a real influence on the Anxiety Level of students at SMP Negeri 26 Malang City.

DISCUSSION

Anxiety Level of Students at SMP Negeri 26 Malang City before and after being given Health Education About Strengthening and Understanding Covid-19

Anxiety Level Students in the group before being given Health Education on Strengthening and Understanding Covid-19 had an average posttest score of 50.3, while after being given Health Education on Strengthening and Understanding Covid-19 had an average pretest score of 70.48. The group experienced a decrease of 20.18. Several things can cause anxiety to occur in a person, including (1) the age factor plays an important role because different ages have different stages of development; (2) a conducive environment will reduce the risk of anxiety in a person; (3) knowledge and experience of an individual can help solve psychological problems including anxiety; (4) a less supportive family role will make adolescents depressed and experience anxiety (PH et al., 2018).

Factors that affect anxiety are the environment. A conducive environment at SMP Negeri 26 Malang, where every time you enter school, you must wash your hands first, check your temperature, and be given an odor stimulus, is one of the screenings for preventing Covid-19 transmission, and the education provided can reduce the anxiety felt, especially for students in SMP Negeri 26 Malang. Lack of knowledge, but supported by a conducive environment, can affect student anxiety. In addition, good knowledge but the role of teachers and parents is less than optimal in calming students, can also affect anxiety.

Anxiety is a normal feeling that humans have because when they are anxious, humans are awakened and reminded that there will be a dangerous situation that threatens them. When anxiety which is a normal condition that cannot be controlled will turn into continuous anxiety, that anxiety will interfere with daily activities

carried out by students. Anxiety is a negative emotion felt by humans, the emergence of tense feelings and thoughts, and accompanied by symptoms of a fast heartbeat, sweating, and shortness of breath (Annisa & Ifdil, 2016). Anxiety can be divided into four levels, namely mild anxiety, moderate anxiety, severe anxiety, and very severe anxiety. The level of anxiety felt by each individual is different, and is influenced by how the individual adapts and copes with situations that trigger anxiety in students (Lisa Mutiara Anissa, Suryani, 2018). This can also happen to teenagers, especially students at SMP Negeri 26 Malang.

Students at SMP Negeri 26 Malang are all in their teens, which is a period of transition or transition due to biological and psychological growth, development, and changes. Biological changes are characterized by the growth and development of primary sex, while psychological changes are characterized by changes in attitudes, feelings, and emotions. This transitional period is a time of a lot of pressure because it causes emotional upheaval, anxiety, and discomfort. After all, the teenager is required to adapt and accept all the changes that occur (Bariyyah Hidayati & M.F., 2016). In this case, the pressure that occurs on students is the presence of Covid-19 which can cause anxiety. However, the results of the study showed that students' anxiety decreased after the Health Education on Strengthening and Understanding of Covid-19 was carried out.

The Effect of Health Education on Strengthening and Understanding Covid-19 on Students' Anxiety Levels at SMP Negeri 26 Malang City

Data analysis using SPSS 20 shows that the average student anxiety level in children before and after the Health Education treatment on Strengthening and Understanding Covid-19 using the Wilcoxon test with Asymp results. Sig. (2-tailed) is 0.000. This means that H1 is accepted or there is an influence between Health Education on Strengthening and Understanding of Covid-19 on the Anxiety

Level of students at SMP Negeri 26 Malang City.

Anxiety is triggered by various factors, namely knowledge (Utami, 2019). Knowledge is the basis of one's actions so that it stimulates one to do something. Knowledge can be obtained from various sources, namely teachers and parents. Knowledge gained from teachers and parents is also able to reduce adolescent anxiety in dealing with changes that occur (Mukhoirotin, 2016). Health education conducted in schools is the most effective effort among other community units (Nadeak et al., 2014). The health education carried out is Health Education on Strengthening and Understanding Covid-19 which is given to students. The activities carried out can have a real impact on students where students know Covid-19.

Students at SMP Negeri 26 Malang are individuals who can capture information quickly, but the method used by each student is not the same in capturing the information. The right way is needed in maximizing students' knowledge of Strengthening and Understanding Covid-19 (Natalia et al., 2020). The knowledge provided by the school to students must be ensured that the information provided is correct because inappropriate information can cause anxiety and stress (Setiawan et al., 2018). The Covid-19 outbreak is a worldwide epidemic that can cause thousands of reports about Covid-19. However, not all of the information is correct, which can add to the worries and anxiety of students who read and hear it (Nurislaminingsih, 2020). Therefore, this research was conducted so that there was an influence between Health Education on Strengthening and Understanding of Covid-19 on the Anxiety Level of students at SMP Negeri 26 Malang City.

CONCLUSION

The results of this study, students at SMP Negeri 26 Malang City have knowledge and understanding about Covid-19 and the anxiety experienced by students has decreased.

SUGGESTIONS

The school is to continue to monitor students' knowledge about Covid-19 and monitor the anxiety experienced by students during the learning process at school.

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DECLARATION OF CONFLICTING INTEREST

There is no conflict of interest in this research.

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AUTHOR CONTRIBUTION

Wahidyanti Rahayu Hastutiningtyas:

Compile article and analysis research data.

Yanti Rosdiana: Perform data collection and compile article.

Srijatun Srijatun: Assist in the interpretation of the results of data analysis.

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None.

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