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The Effect of Online Seminars on Public's Knowledge About the Covid-19 Pandemic in the New Normal Era

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ABSTRACT

Covid-19 (Coronavirus Disease 2019) is a disease transmitted between animals and humans (zoonosis) by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV2). A total of 70,736 confirmed cases of Covid-19 and 3,417 deaths have been reported by the Ministry of Health (9 July 2020). Various steps have been taken to control the spread of the Covid-19 pandemic that is currently happening in Indonesia, one of which is health promotion. During the Covid-19 pandemic, it was suggested that educational methods be better done online. So, this study is interested in assessing the effect of the educational method with online seminars through WhatsApps on the knowledge of the general public about covid-19 and the new normal policy. This study uses a research design quasi experimental pre and post test design by comparing the knowledge of respondents before and after observation. Observations were made when respondents attended online seminars about covid-19 and new normal via the WhatsApp group. The population in this study were 416 people who were members of the online seminar group conducted by the IKM-IKK FK Unsri department. In this study, 171 respondents met the inclusion and exclusion criteria. The results of the univariate analysis regarding the characteristics of the respondents obtained an average age 28.61 years, female (61.4%), and not yet working (45.6%), including students and college students. It was found that the level of knowledge of respondents about Covid-19 increased from 43.9% becomes 77.8%. Likewise, the respondents good knowledge about the new normal increased from 9.9% becomes 42.1%. On comparative analysis showed a significant change in knowledge about Covid-19 and new normal respondents after attending an online seminar, namely p= 0,000 and p= 0,000. So, it can be concluded that online seminars have a significant effect on changes in the knowledge of the general public about Covid-19 and the new normal.

1. Introduction

Covid-19 (Coronavirus Disease 2019) is caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV2) and is transmitted between animals and humans (zoonosis). The first case of pneumonia with unknown cause was reported from Wuhan City, China on December 31, 2019. China identified the case as a new type of coronavirus on January 7, 2020. After being designated as a Public Health Emergency that Concerned the World (KKMMD) by WHO on January 30 2020 then Covid-19 was designated by WHO as a pandemic on March 11, 2020. The first case in Indonesia was reported on March 2, 2020. A total of 70,736 confirmed cases of Covid-19 and 3,417 cases died have been reported by the Ministry of Health (9 July 2020).[1,2]

Covid-19 transmission has a big risk due to people's daily activities. However, the government still has to maintain the people's economy to be stable by establishing a policy of changing life patterns through new arrangements and adaptations of habits (new normal) so that they remain productive but avoid contracting Covid-19. The main key to minimizing the transmission of Covid-19 in the new normal era is discipline in applying the principles of a cleaner and healthier lifestyle, so that the Covid-19 pandemic can be passed well. In addition to the role of the government that has issued a new normal policy, the roles of individuals and society are very supportive of the successful prevention of Covid-19 transmission.[3,4]

Knowledge is the result of knowing, and this occurs after people sensing a certain object. Sensing occurs through the human senses, namely the senses of sight, hearing, smell, taste and touch. Most of human knowledge is obtained through the eyes and ears. Education level, age, occupation, and information are internal factors, while environment and socio-culture are external factors that affect a person's knowledge.[5]

Online seminars are a health education method with an interactive group approach aimed at providing education and media providing accurate information. However, there is no research in Indonesia that assesses the effect of these health education methods on changes in public knowledge during a pandemic. Flexibility is one of the advantages obtained from the online seminar learning method and the weaknesses of the online seminar method, namely the limited coverage of participants in individuals with internet access and this method is limited to individuals who have technological skills (technology literacy).6 Therefore this research was conducted to assess the effect of health education methods in the form of online seminars on public knowledge in dealing with the atmosphere of the Covid-19 pandemic.

2. Methods

The research design used in this study is quasi experimental pre and post test design which aims to compare respondents knowledge before and after attending the Covid-19 online seminar in the new normal era. The title of the online seminar that was participated in was "Acting carefully against the Covid-19 Pandemic: How?". The population in this study are513people who joined the WhatsApp group online seminars held by the IKM-IKK FK Unsri department. Research conducted from June July This 2020 uses a total sampling method for all participants who meet the inclusion criteria and do not have exclusion criteria.

The data used in this study are primary data from filling out an online questionnaire regarding physical profile, demographics, respondents knowledge of Covid-19 and the new normal. Respondents knowledge was assessed from the correct answers obtained from the 20 “yes” “no” questions asked, 10 knowledge questions about Covid-19 and 10 knowledge questions about the new normal.

The data obtained will be processed using the SPSS 23.0 program and univariate analysis is carried out to determine the distribution of research variables, while the bivariate analysis uses a comparative test to determine the significance of differences in the mean knowledge of respondents before and after attending the online seminar.

3. Results and discussion

In Table 1, it can be seen that the majority of respondents in this study were 28.61 years old, 105 female (61.4%), and 78 people (45.6%) unemployed, including college students and students.

Table 1. Physical and demographic characteristics of respondents

Characteristics	n	%
Age	28.61 ± 12.17	
Sex		
Male	66	38.6
Female	105	61.4
Occupation		
Unemployed	78	45.6
Retired	1	0.6
Housewife	11	6.4
Entrepreneur	14	8.2
General employees	25	14.6
Civil servants	27	15.8
Etc	15	8.8

Table 2. Frequency distribution of respondents correct answers about covid-19 before and after participating in online seminars

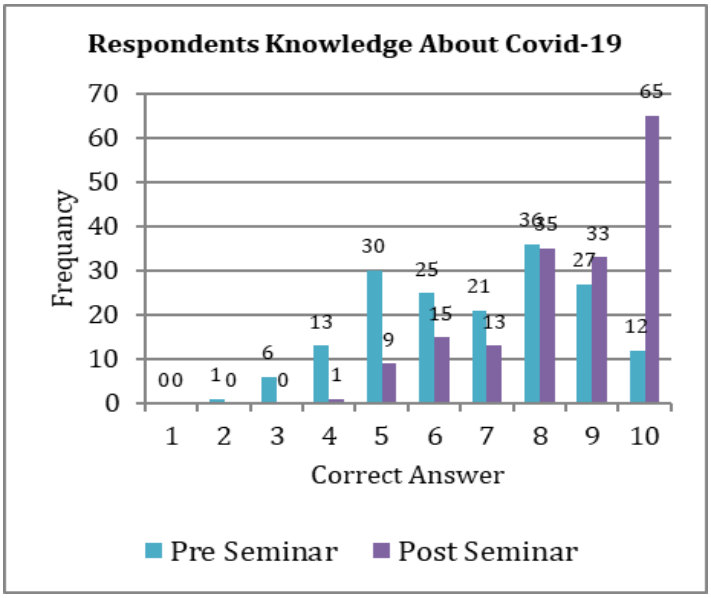
Question	Correct answer	
	Pre n (%)	Post n (%)
Cough, runny nose, sore throat, fever to shortness of breath. are symptoms that can be found in sufferers of Covid-19	150 (87.7)	168 (98.2)
The Corona virus is transmitted through droplets / splashes of body fluids when coughing, sneezing or talking	145 (84.8)	168 (98.2)
Only individuals who have symptoms can transmit Covid-19	121 (70.8)	151 (88.3)
Children and the elderly are at a higher risk of contracting Covid-19	142 (83.0)	164 (95.9)
Washing your hands with water alone can kill the corona virus on your hands	125 (73.1)	154 (90.1)
Maintaining a distance from other people of at least 1 meter can prevent Covid-19	139 (81.3)	164 (95.9)
Covering your mouth and nose using your palms when coughing / sneezing is the right cough / sneeze etiquette	87 (50.9)	125 (73.1)
Basking under the sun can kill the Corona virus	90 (52.6)	122 (71.3)
The Rapid Test can be done as a definite check to detect Covid-19	78 (45.6)	129 (75.4)
People infected with Covid-19 can recover without special treatment	93 (54.4)	171 (66.1)

In Table 2, the data on the frequency distribution of respondents correct answers from a questionnaire containing 10 questions about knowledge about Covid-19 are obtained. The score is determined directly by the researcher, namely a score of 1 for correct answers and a score of 0 for incorrect answers. It can be seen that the correct answers of respondents about symptoms, transmission, vulnerable groups, prevention, testing and treatment of Covid-19, the majority increased in number and

percentage after attending online seminars. Before the seminar, the most answered questions were about the symptoms of Covid-19, namely 87.7% and after attending the online seminar the most correct questions were about the symptoms and transmission of Covid-19, which were 98.2%.

Measurement of respondents knowledge about Covid-19 shows significant changes before and after the online seminar. The results of the distribution per category of knowledge level can be seen in figure 1. Meanwhile, table 2 shows the paired test results of the respondents mean knowledge.

Figure 1. Frequency of knowledge value distribution about covid-19 respondents before and after online seminar



From the graph above, the highest score obtained before the seminar was 8 which was obtained by 36 people (21.1%), while the highest score obtained after attending the seminar was the value of 10 obtained by 65 people (38.0%). The level of knowledge before attending the seminar was found that 50 people (29.2%) had less knowledge, 46 people (26.9%) had sufficient knowledge, and 75 people (43.9%) had good knowledge. Meanwhile, after the seminar, it was found that 10 people (5.8%) had less knowledge, 28 people (16.4%) had sufficient knowledge, and 133 people (77.8%) had good knowledge.

Table 3. Covid-19 knowledge normality test

Knowledge	**Kolmogorov-Smirnov**		
	Statistics	***Df***	***Sig.***
Pretest	0.165	171	0.000
Posttest	0.208	171	0.000

The Kolmogorov-Smirnov test

The results of the data normality test of respondents knowledge of Covid-19 before and after attending online seminarsusing the Kolmogorov-Smirnov test. It was found that prior knowledge (p_value=0,000) and after knowledge (p_value=0,000). This shows that the knowledge and after data are not normally distributed (p<0.05), so that Wilcoxon test is used to compare the knowledge of respondents before and after attending online seminars. The analysis results are presented in table 4.

Table 4. Wilcoxon test results of respondents knowledge value before and after the online seminar

Measurement	**Average Value ± SD**	**P_value***
Before seminar	6.84±1.92	0.000
After seminar	8.52±1.56	

** Wilcoxon Test*

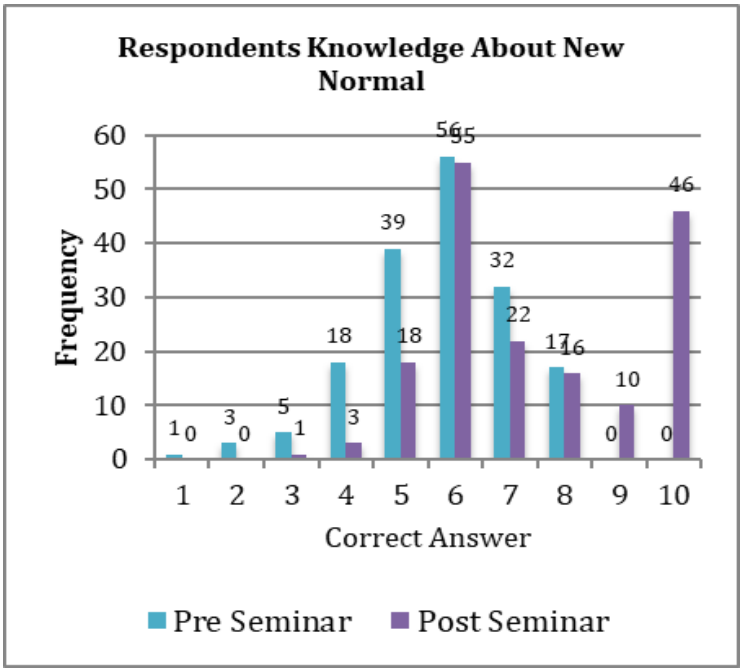
This is because the results of the data normality test show that the difference in the value of knowledge about Covid-19 has a p_ value <0.05, which means data not normally distributed, so the comparative analysis method chosen was the Wilcoxon test. The results of the comparative test conducted on the knowledge aspects of Covid-19 before and after the respondents attended online seminars. The results show the value of p_value=0.000 (p<0.05), which means that there is a significant change in the mean knowledge before and after attending the online seminar. Meanwhile, the results of measuring peoples knowledge of the new normal can be seen in graph 2 and table 4.

Table 5. Frequency distribution of respondents correct answers about new normal before and after participating in online seminars

Question	**Correct answer**	
	Pre n (%)	**Post n (%)**
Mandatory shower and change of clothes before contact with family at home after activities outside during the new normal	142 (83.0)	169 (98.8)
New normal is a change in behavior to maintain normal activities and implement health protocols during a pandemic	155 (90.6)	169 (98.8)
Companies must require workers to wear masks at work during the new normal	147 (86.0)	169 (98.8)
Companies must prohibit employees from coming to work if they have symptoms of fever / sore throat / cough / runny nose / shortness of breath	146 (85.4)	169 (98.8)
New normal aims to accelerate the handling of Covid-19 in the health and socio-economic aspects	131 (76.6)	159 (93.0)
All regions in Indonesia will carry out a new normal in the near future	115 (67.3)	152 (88.9)
One of the conditions for implementing the "New Normal" is that the government can prove that the transmission of the corona virus has been controlled	39 (22.8)	71 (41.5)
The implementation of the new normal is carried out only in crowded places	52 (30.4)	83 (48.5)
Everyone keeps a minimum distance of 1 meter from other people during the new normal	30 (17.5)	56 (32.7)
Only people with Covid-19 need to use a mask during the implementation of the new normal	28 (16.4)	71 (41.5)

Table 5 shows the frequency distribution data of respondents correct answers from a questionnaire containing 10 questions about knowledge of the new normal. The score is determined directly by the researcher, namely a score of 1 for correct answers and a score of 0 for incorrect answers. It can be seen that the majority of respondents correct answers about the implementation of the new normal policy increased in number and percentage after attending online seminars. Before the seminar the most answered questions correctly were the application of the new normal, namely 90.6% and after attending the seminar the most answered questions were regarding prevention after activities outside the home, application of new normal, wearing masks, and regulations on prohibition of work when sick, that is, both 98.8%.

Figure 2. Frequency of knowledge value distribution about new normal respondents before and after online seminar



In the graph above, the highest score obtained before and after the seminar is the value of 6 obtained by 56 people (32.7%) and 55 people (32.2%). The level of knowledge about the new normal before attending the seminar found 17 people (9.9%) had good knowledge, 89 people (52.0%) had sufficient knowledge, and 65 people (38.0%) had poor knowledge. Meanwhile, after the seminar, 72 people (42.1%) had good knowledge, 77 people (45.0%) had sufficient knowledge, and 22 people (12.9%) had poor knowledge.

Table 6. New normal knowledge normality test

Knowledge	**Kolmogorov-Smirnov**		
	Statistics	*Df*	*Sig.*
Pretest	0.183	171	0.000
Posttest	0.222	171	0.000

The Kolmogorov-Smirnov test

The results of the normality test of the respondent's knowledge of the new normal before and after attending the online seminar found that prior knowledge (p_value=0,000) and after knowledge (p_value=0,000), this shows that the knowledge and after data are not omral distributed (p<0.05). The analysis results are presented in table 4.

Table 7. Wilcoxon test results of respondents knowledge value before and after online seminar

Measurement	**Average Value ± SD**	**P_value ***
Before seminar	5.76±1.37	0.000
After seminar	7.40± 1.89	

** Wilcoxon Test*

This is because the results of the data normality test show that the difference in the value of knowledge about the new normal has a p value <0.05, which means that the data is not normally distributed. Thus, the method of comparative analysis chosen was the Wilcoxon test. The results of the comparative test carried out on aspects of knowledge about the new normal before and after the respondent attended the online seminar. The results showed the value of p=0.000 (p<0.05) which indicates a significant change in the mean knowledge before and after attending the online seminar.

Based on the physical characteristics of the respondents, the average age of the respondents who attended online seminars was 28.61 years. The results obtained are supported by a survey conducted by the Indonesian Internet Service Providers Association (APJII) which states that in Indonesia the 19-34 year old group (49.5%) is the most internet / gadget user. In addition, in this study it was found that most women were followed by 61.4%. It is inversely proportional to the results of the APJII survey, which shows that the most internet users are male (51.43), but this is in line with the change.org survey which shows the dominance of the female sex (55.6%). Aside from that, It was found that female gender has more attention for health protocols than male according to the Indonesian Central Bureau of Statistics. From the level of employment, it was found that the most respondents were unemployed 45.6% (including college students and students) and the second highest was obtained by respondents who worked as PNS (15.8%). This is supported by the APJII survey which shows that 93.1% of internet users are from the middle-upper (educated) economic class.7,8 Most are still in school, which is around 7.3 million people.9 The number of civil servants in Indonesia compared to the population is 1:60 and in Jakarta the total number of civil servants and CPNS is 75,000 people.[10]

In paired data analysis, there was a significant difference in respondents' knowledge of Covid-19 before and after attending online seminars. The results of the analysis of the value of the public's most knowledge about Covid-19 before and after attending online seminars increased from 8 to 10. From the analysis of the data distribution, the level of knowledge of respondents before and after attending the seminar was obtained 75 people (43.9%) with good knowledge levels before the seminar and increased to 133 people (77.8%) after the seminar. The mean value of the respondents knowledge before attending the online seminar was 6.84 and increased after the online seminar to 8.52

and after bivariate analysis the value of p_value=0,000 was obtained.

A study that examines internet-based online education methods with various types of media, for example webinars, webcasts, webmasters, etc. regarding health information over the last few decades shows that as long as educational programs are implemented it can also be measured regarding knowledge, attitudes, behaviors, and perceptions of respondents.6.11 This is supported by research on online education during the Covid-19 pandemic by comparing the Whatsapp group and Zoom media, it was found that 98% of respondents preferred the use of Whatsapp groups as an online learning medium during the pandemic because it was easier to use and understand by various groups.[11]

These results were also supported by research with pre and post intervention methods aimed at assessing changes in respondent knowledge after the 1.5 hour seminar. After attending the seminar the respondents will be given the same questions in the questionnaire before and after attending the seminar. The results obtained were significant changes to the increase in respondents knowledge before and after attending online seminars ($p < 0.05$).[12]

In paired data analysis, there was a significant difference in respondents knowledge about the new normal policy before and after attending online seminars. From the analysis of the data distribution level of respondents knowledge before and after attending the seminar, it was found that 17 people (9.9%) had good knowledge levels before the seminar and increased to 72 people (42.1%) after the seminar. The mean value of the respondents knowledge before attending the online seminar was 5.76 and increased after the online seminar to 7.40 and after bivariate analysis the value of p_value=0,000 was obtained. These results indicate that online seminars can have a significant effect on increasing respondents knowledge of the new normal policy ($p < 0.05$).

Both online seminars and outreach are both methods of health education, this is one way to gain knowledge. This is because education, the experience of oneself and others, the mass media and the environment are most of the ways humans acquire knowledge.[5,13] The internal factors possessed by respondents support the acceptance of knowledge such as a sufficiently mature age, higher educational background and everyday life work by promoting the work of the brain / mental labor. This finding is supported by research on respondents in the US who stated a high correlation between the level of knowledge and age, education, and occupation.[5,14,15]

The new normal policy in Indonesia began to be conveyed to the public on May 28, 2020. This caused the public to understand the new normal policy, living side by side with Covid-19. Knowledge about the new normal which is still very limited can be seen from the results of this study obtained 89 people (52.0%) had sufficient knowledge about the new normal.

This result is similar to the social study by LIPI which states that 92.8% of respondents agree to continue implementing regional quarantine, besides that, the community also has expectations for the government to provide logistical and financial assistance because knowledge of the new normal policy is still very limited to the community.[16] There is no specific research that aims to determine the significance of changes in public knowledge regarding the new normal policy with online seminar interventions in Indonesia.

The reasons why the health protocol in the new normal era must be carried out in Indonesia and explained (education) to the general public, among others, first, during the pandemic, there was a surge in unemployment due to the large number of companies that terminated their employment, so that economic factors were the reason. Second, the feeling of ignorance due to ignorance and the perception of a

low risk of infection. Third, sociocultural factors, as it is known that the norms adopted by some societies make many people tend to underestimate health regulations.[17,18]

People who do not agree with the new normal can be influenced by factors of knowledge, understanding, and good risk perceptions, so that people tend to be "afraid" to come back out. Therefore, the government must provide complete information about the pandemic to maintain public trust, even when information is very limited. Governments must not underestimate the realities of risk and vulnerability in order to reduce public fear and concern. In addition, contradictory information that is managed by the government can be associated with reduced public trust.[19,20]

In this study, there are limitations, namely that not all of the respondents who participated in the online seminar filled out the pre-seminar questionnaire and after attending the online seminar, not all respondents also filled out the post seminar questionnaire with the same questions. Thus, not all levels of knowledge of respondents who attended online seminars could be identified. Therefore, further research is expected to provide information with good communication on the importance of filling out questionnaires before and after attending online seminars to respondents.

4. Conclusion

In this research, which has been carried out by intervening online seminars on respondents, there is a significant change in the knowledge of the general public about general information about the Covid-19 pandemic and the new normal policy. During the Covid-19 pandemic era, it was impossible to provide health promotion to the public directly (face to face). Thus, online teaching and online seminars have become effective and easy means of gathering people to provide health promotion during the Covid-19 pandemic.

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