

THE ASSOCIATION BETWEEN KNOWLEDGE AND ATTITUDE TOWARDS COVID-19 AND INTEREST IN ONLINE LECTURE OF PRE-CLINIC AND CLINIC SECRETARIAT STUDENTS OF FACULTY OF MEDICINE

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ABSTRACT

Coronavirus diseases 2019 or COVID-19 have gotten the world's attention since its first existence in Wuhan, China at the end of December 2019. COVID-19 has been considered as a pandemic by WHO by March 11th, 2020 and today it has brought several life aspects down, such as in economic, political, social, and education aspect. Distance learning (PJJ) either for school students or college students which applies an online method becomes the best solution for the impacted countries, including Indonesia. The purposes of distance/online lecture are to ensure that the teaching-learning process is still conducted based on curriculum outcomes target or university credit unit (SKS) and to prevent the COVID-19 cluster formed in schools. There are many factors affecting the effectiveness of online lecture, one of them is students' interest to it. This study aimed to see the correlation between knowledge and attitude towards COVID-19 and interest in online lecture of pre-clinic and clinic secretariat students of the Faculty of Medicine of Universitas Sriwijaya in 2020. This study was observational analytic with a cross-sectional design. This study involved 101 respondents. The descriptive analysis results showed that most respondents were ≥ 21 years and female. The majority of preclinical and clinical clerkship students had a good level of knowledge (76.8% and 52.6%), a good attitude (74.4% and 57.9%), and a high interest in studying online (54.9% and 57.9%). The bivariate analysis results in this study showed a significant relationship between knowledge of COVID-19 and interest in online lectures in preclinical students and clinical clerkship ($p=0.039$ and $p=0.005$). Attitudes towards COVID-19 had a significant relationship with interest in online classes in preclinical students and clinical clerkship ($p=0.041$ and $p=0.024$).

Keywords: knowledge, attitude, online lecture, medical students.

1. INTRODUCTION

Coronavirus diseases 2019 or COVID-19 have gotten the world's attention since its' first appearance in Wuhan, China, at the end of December 2019. It is due to its fast spread. On March 11th, 2020, WHO has considered COVID-19 as a pandemic.¹Until October 3rd, 2020, WHO

reported that there were 34,495,176 confirmed COVID-19 cases, with 1,025,729 death cases. The highest cumulative cases based on WHO data on October 3rd, 2020 was in the USA by 7,206,769 cases. The number beat India which was in the second position by 6,473,544 cases. Coronavirus diseases firstly appeared in Indonesia at the

beginning of March 2020. By October 3rd, 2020, the number of cumulative COVID-19 cases in Indonesia was 295,499 cases with 10,972 death cases.²

Researchers agreed that this infectious disease is caused by a type of new coronavirus, named SARS-CoV-2. The primary transmissions of COVID-19 are through droplets (saliva splash) and direct contact with infected people when they sneeze, cough, breath, talk, or sing in a short radius (1 meter). This transmission is called as direct transmission. The virus also may be transmitted indirectly. It can enter the lung through the mouth, nose, or eyes. In addition, droplets may be transmitted to other people when touching patients or holding objects which are contaminated by SARS-CoV-2 (indirect transmission/fomite). Some research mentioned that infected patients had severe clinical symptoms to death, yet there are also the ones who do not show any symptoms (asymptomatic cases) and the cases are still able to transmit the virus.³

The increased of confirmed cases in each day has affected some aspects of life such as in education, economic, social, and politic. Therefore, Indonesian government set some policies in order to break the transmission of COVID-19 like work, pray, and study from home.⁴ All society as parts of the country have to take parts in breaking the transmission chain. Every person must have understanding, attitude, and knowledge towards her or his country condition, especially in pandemic situation like today. The success of a country in beating COVID-19 relates to people's knowledge and attitude towards the existing situation.

UNESCO stated that until September 30th, 2020, the COVID-19 pandemic has affected 851,870,246 students over the world.⁶ This is the reason why many countries, including Indonesia, decided to dismiss all educational activities in schools/universities then to conduct distance learning/ online learning. This learning method which is rarely conducted

in Indonesia gains many pros and cons among students in the terms of its effectiveness.⁷

Online learning method actually has a chance to enhance students' interest to learn since the concept is not monotonous, in another hand, some people assume that this method of learning causes students' interest to learn decreases because the students' comprehension level in online learning is lower than in face-to-face or direct learning. Based on the background above, the researcher would like to see and to analyze the correlation between knowledge and attitude towards COVID-19 and interest in online lecture of pre-clinic and clinic secretariat students of Faculty of Medicine of Universitas Sriwijaya in 2020.

2. METHOD

Design and Sample

This study was observational analytic with a cross-sectional design. This study was conducted in October 2020. The population of this study was all pre-clinic students of the Medicine Education Study Program of Universitas Sriwijaya and all clinic secretariat students of the Profession Program of Medicine of Universitas Sriwijaya. Samples were taken from the population by implementing a proportional random sampling technique and a Slovin minimal number of samples so that there were 101 respondents for the samples.

Source of Data

Data collected were primary data. The data were collected by distributing questionnaires in the form of online questionnaire (google form) to the samples of this study. The questionnaire consisted of 13 questions about knowledge, 11 questions about attitude, and 9 questions about interest in online lecturer which its validity and reliability were tested using SPSS version 20. Correct answers were scored 1 and incorrect answers were scored 0. Respondents' knowledge level

was categorized poor if the score was <56%, fair if the score was 56–75%, and good if the score was 76–100%. Attitude was categorized poor if the score <9 and good if the score ≥ 9 . Interest in online learning was categorized low if the score <36 and high if the score was ≥ 36 .

Data Analysis

Data were analyzed by implementing a quantitative data analysis technique. Data were presented categorically. The data of knowledge, attitude, and interest in online learning were presented in the form of categorical to determine each answer's proportion and percentage. Univariate analysis was obtained descriptively by creating a distribution frequency of characteristics, knowledge, attitude, and interest in online learning of research respondents. Bivariate analysis was analyzed by conducting a chi-square test.

3. RESULT

Based on **Table 1.**, from 101 respondents, it was found that the majority of respondents were in the age group ≥ 21 years (37.6%), female gender (67.3%). The majority of respondents have good knowledge, 77.2% for preclinic students, and 52.6% for clinical clerkship students (**Diagram 1.** and **Diagram 2.**). Most of the respondents had a good attitude, 74.7% for preclinic students, and 57.9% for clinical clerkship students (**Diagram 3.** and **Diagram 4.**). The majority of respondents have a high interest in studying online, some 54.9% for preclinic students and 57.9% for clinical clerkship students (**Diagram 5.** and **Diagram 6.**).

The results of the analysis using the chi-square test for preclinical and clinical clerkship students can be seen in **Table 2.** and **Table 3.**

Table 1. The frequency distribution of the respondent's characteristics

| Characteristics | f | % | |
|-----------------|----------------------|----|------|
| Age | ≤ 17 years old | 8 | 7.9 |
| | 18 years old | 14 | 13.9 |
| | 19 years old | 21 | 20.8 |
| | 20 years old | 20 | 19.8 |
| | ≥ 21 years old | 38 | 37.6 |
| Gender | Male | 33 | 32.7 |
| | Female | 68 | 67.3 |
| Education Level | Preclinical | | |
| | • 2017 | 20 | 19.8 |
| | • 2018 | 21 | 20.8 |
| | • 2019 | 20 | 19.8 |
| | • 2020 | 21 | 20.8 |
| | Clinical Secretariat | 19 | 18.8 |

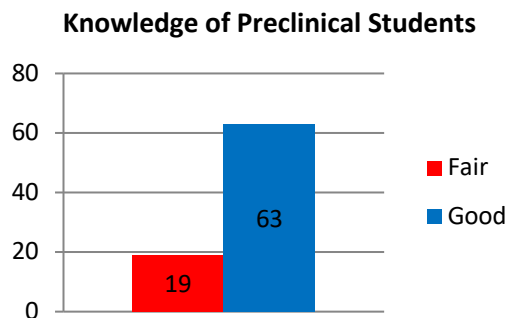


Diagram 1. The frequency distribution of the preclinical students' knowledge

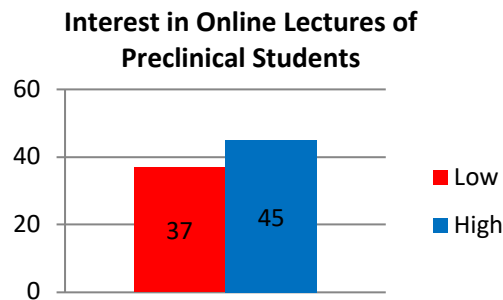


Diagram 5. The frequency distribution of the preclinical students' interest in online lectures

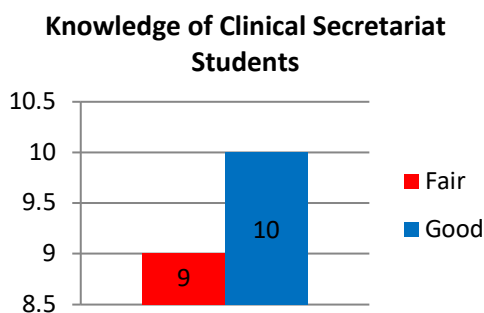


Diagram 2. The frequency distribution of the clinical secretariat students' knowledge

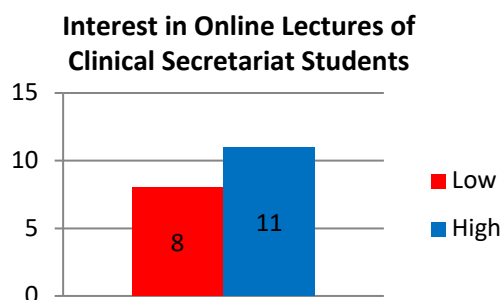


Diagram 6. The frequency distribution of the clinical secretariat students' interest in online lectures

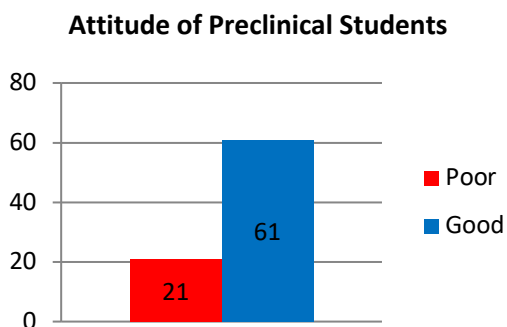


Diagram 3. The frequency distribution of the preclinical students' attitude

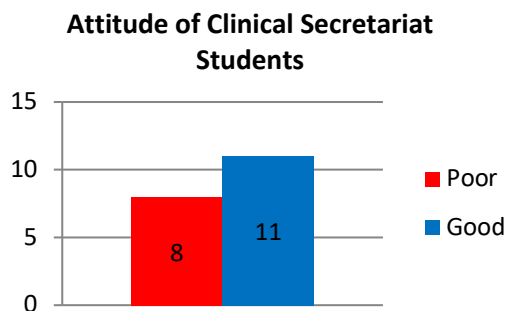


Diagram 4. The frequency distribution of the clinical secretariat students' attitude

Knowledge of COVID-19 among preclinic students and clinical clerkship was significantly associated with interest in studying online ($p=0.039$ and $p=0.005$). The PR value was 1.796 and the confidence interval [(1.158), (2.785)] in the preclinic; this result means that respondents who have good knowledge have the opportunity to have a high interest in online lectures 1.796 times greater than respondents with fair knowledge levels. Researchers obtained the PR value of 7.778 and confidence interval [(1.173), (51.582)] at clinical clerkship. This result means that respondents who have good knowledge have the opportunity to have a high interest in online lectures 7.778 times greater than respondents with fair knowledge level.

Based on the results of the bivariate analysis, it was found that there was a

significant relationship between attitudes towards COVID-19 and interest in online lectures among preclinical students and clinical registrars ($p=0.041$ and $p=0.024$). The PR value was 1.768, and the confidence interval 95% [(1,136), (2.751)] at the preclinic; this result means that respondents who have a good attitude have a chance to have a high interest in online

college 1.768 times greater than respondents with poor attitudes. The PR score was 4.125 and the confidence interval [(1.106), (15,378)] at the clerkship of the clinic; this result means that respondents who have a good attitude have the opportunity to have a high interest in studying online 4.125 times greater than respondents with poor attitudes.

Table 2. The result of bivariate analysis in preclinical students

| Variable | | Interest in Online Lectures | | <i>p-value</i> | PR |
|-----------|------|-----------------------------|------------|----------------|-------|
| | | Low | High | | |
| Knowledge | Fair | 13 (15,9%) | 6 (7,3%) | 0,039 | 1.796 |
| | Good | 24 (29,3%) | 39 (47,6%) | | |
| Attitude | Poor | 14 (17,1%) | 7 (8,5%) | 0,041 | 1.768 |
| | Good | 23 (28,0%) | 38 (46,3%) | | |

Table 3. The result of bivariate analysis in clinical secretariat students

| Variable | | Interest in Online Lectures | | <i>p-value</i> | PR |
|-----------|------|-----------------------------|-----------|----------------|-------|
| | | Low | High | | |
| Knowledge | Fair | 7 (36,8%) | 2 (10,5%) | 0,005 | 7.778 |
| | Good | 1 (5,3%) | 9 (47,4%) | | |
| Attitude | Poor | 6 (31,6%) | 2 (10,5%) | 0,024 | 4.125 |
| | Good | 2 (10,5%) | 9 (47,4%) | | |

4. DISCUSSION

COVID-19 has been considered as a pandemic by WHO by March 2020 and today COVID-19 has brought some life aspects down, such as economic, political, social, and education. Distance learning either for school students or college students—including medical students—with online method has become a choice for impacted countries, including Indonesia. The purpose of distance/online lecture is to ensure that teaching-learning processes are still conducted based on curriculum outcomes target or university credit unit (SKS), yet this is not the main purpose. The main purpose of conducting online lecture as a learning system during the pandemic is to break the COVID-19 transmission chain by preventing the COVID-19 cluster formation in schools.³⁴

Most of the preclinic and clinical secretariat students of the faculty of medicine Unsri, who had been included in this study, had a good level of knowledge and attitudes towards COVID-19. This showed that with medicine education background, the students

were aware to know more about COVID-19 so that they tended to search recent information about it and to learn it from several sources. This result is in line with a study in China by Gao et al. which the majority of respondents were medical students (66%) and most of the respondents had good knowledge, perception, and attitude towards COVID-19.³⁵ Yu et al. in her research which was done in China also found a similar result, that was the majority of respondents who was medical students interested to follow news/progress about COVID-19. Medical students in Yu et al.'s research mostly accessed information about COVID-19 from social media, news applications, and television (TV).³⁶ In line with this study, Olum et al. in his research which the respondents were medical students also had a similar result. There were 91% respondents who had good knowledge, 74% respondents who had positive attitude, and 57% respondents who had good practice.³⁷ Another similar study was from Taghfir et al. which 79.6% of the respondents had high knowledge about COVID-19.³⁸

The chi-square test in this study showed a significant relationship between knowledge of

COVID-19 and interest in online lectures among preclinical students and clinical secretariat ($p=0.039$ and $p=0.005$). This result indicated that interest in online lecture could be affected by students' knowledge about COVID-19. This result was consistent to a study by Demuyakor J which stated that the majority of respondents extremely knew about the deadly COVID-19 and was very satisfied with online learning. In line with Demuyakor J which was done in China, Chatterjee S in his research in India mentioned that academic ability, including knowledge and motivation, was a factor which affected online learning process. Other factors affecting online learning effectiveness were internet access, conducive environment, economical condition, family supports, and technical ability.⁴⁰ Based on the previous studies, it can be concluded that good knowledge about COVID-19 will affect someone to see and understand of distance/online learning policy—benefits, purposes, and strengths—so that it can enhance students' motivation and interest to join online lectures.

Attitudes towards COVID-19 have a significant relationship with interest in online lectures among preclinical students and clinical secretariat students ($p=0.041$ and $p=0.024$). Some studies showed similar result. Sindiani et al. stated that attitude was one of factors which affected online learning effectiveness—beside age and educational level factor.⁴¹ The result is also in line with Olum et al.'s study which mentioned that someone's attitude towards COVID-19 correlated to online learning.³⁷ Hence, attitude is a predisposition factor which may affect someone's interest to learn. This is in line with an opinion which stated that if someone gets an object or a stimulus, then they want to and tend to notice the object/stimulus. They will give a positive worth to the object/stimulus until there is a responsibility attitude which is reflected from their attitude.²⁷

Educational level is one of factors which can affect students' interest in online lecture. Olum et al. in his research stated that there was a significant correlation between educational level and medical students' knowledge, attitude, and practice towards COVID-19 ($p=0.001$).³⁷ Sindiani et al. mentioned that the factors which affected students' interest and online learning

effectiveness were age, educational level, attitude towards COVID-19, involvement, and students' satisfaction in online learning. The study by Sindiani et al. also mentioned that there was a significant correlation between students' academic year and interest in online learning ($p=0.001$). According to Kapila et al., medical students had been affected due to COVID-19. The COVID-19 pandemic has a chance to cause anxiety on medical students. Kapila et al. stated that the higher the medical students' educational level, then the higher the chance for students to have anxiety. Anxiety was caused of students' hesitation of knowledge, ability, and competency they had, thus they doubted their readiness to work in medical field in the future. This case caused the students to realize that they must have kept studying via online, webinars, virtual cases discussions, etc.⁴¹ Based on the previous studies, it can be concluded that educational level affects students' interest in online lecture.

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