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## CORRELATION BETWEEN KNOWLEDGE OF COVID-19 AND COMPLIANCE TO HEALTH PROTOCOLS OF UNDERGRADUATE STUDENTS IN YOGYAKARTA DURING PANDEMIC COVIC\_19

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### A B S T R A C T

**Background:** According to data from the World Health Organization until February 16, 2021, there were 332,360 new cases, 108,579,352 confirmed cases and 2,396,408 deaths of covid-19 in the world. Indonesia is currently the second ranked country in Southeast Asia with a confirmed number of 1,223. 930 after the State of India with confirmed cases reached 10,916,589. Undergraduate students are role models for the community on health behavior which is related to knowledge. Knowledge is one of the factors that affect a person's compliance.

**Purpose:** The aim of this study was to determine the relationship between knowledge of covid-19 and compliance to the health protocols of undergraduate students Faculty of Science and Technology, Respati Yogyakarta University.

**Research Methods:** This is analytical research with 92 respondents who were taken through purposive sampling technique. The data was collected by a questionnaire and processed in the chi-square test analysis to determine the correlation between the independent variable and the dependent variable.

**Results:** Most of the of respondents were male. Most of respondents have good knowledge about covid-19 and almost all of respondents comply with health protocols

**Conclusion:** Statistically there is correlation between knowledge of covid-19 and compliance to health protocols of undergraduate students the Faculty of Science and Technology, Respati Yogyakarta University, with p-value of  $0.036 < 0.05$  which means there is a significant correlation between knowledge of covid-19 and compliance to health protocols

### INTRODUCTION

Coronavirus Diseases, also known as covid-19, is a pandemic disease from Wuhan, China. Currently, Indonesia and the world were being hit by a pandemic of Coronavirus Disease 2019 (covid-19). This virus is a zoonotic (transmitted by animals to humans) transmission can also be through close contact or droplets<sup>1</sup>.

According to data from the World Health Organization (WHO) until February 16, 2021, there were 332,360 new cases, 108,579,352 confirmed cases and 2,396,408 deaths. The Americas so far have the highest number of cases in the world, reaching 48,401,821 and the country that has covid-19 cases is the United States with confirmed cases reaching 27,309,503 Indonesia is currently the second ranked country in Southeast Asia with a confirmed number of 1,223. 930 after the State of India with confirmed cases reached 10,916,589.1

Undergraduate students are role models for the community who have self-awareness in developing their potential by seeking scientific truth, and mastering, self-development to become culturally intellectual, scientists, practitioners and professional.

Undergraduate students should have good knowledge. Knowledge is one of the factors that affect a person's compliance<sup>2</sup>.

In a preliminary study which was conducted on February 12th, 2021, through Google form link to 5 undergraduate students of the Faculty of Science and Technology, Respati Yogyakarta University. Out of 5, there are 4 respondents had good knowledge and 1 respondent had pretty good knowledge of covid-19 and all of them complied to health protocol.

Based on observation on February 17, 2021 in the Faculty of Science and Technology, Respati Yogyakarta University, every student who come to campus area should have a body temperature check, washing hands, and wear the mask properly in 1 Respati Yogyakarta University. However, there are many undergraduate students who came to campus without washing hands first even though hand sanitizer was available in front of entrance. There were many undergraduate students did not use masks properly such as: only covering their mouths and chins, there were even undergraduate students who did not wear masks properly when they were in the campus area. There also observed that many undergraduate students did not keep their distance from their friends.

## METHOD

This study is analytical research with cross sectional design and a total sample of 92 samples. The sampling technique was purposive sampling. The data was collected through a questionnaire which was modified in a Google form as a research instrument. The data was analyzed by Chi-Square/ Fisher Exact Test

## RESULTS

### A. Respondent's Characteristic

**Table 4.1. Description of Characteristics of Respondents Based on Gender, Age and Study Program**

Characteristics	Catagories	n	%
<b>Gender</b>	Female	35	38
	Male	57	62
<b>Age</b>	18-21	48	52,2
	22-25	44	47,8
<b>Study Program</b>	Informatika	22	23,9
	Teknik Elektro	24	26,1
	Teknologi Informasi	23	25
	Sistem Informasi	23	25
<b>Total</b>		92	100

Based on table 4.1, known that most (62%) of the respondents are male. Based on the age, it was known that more than half (52.2%) of the respondents are 18-21 years old. The study program with the highest number of respondents was Electrical Engineering with a total of 24 respondents (26.1%).

### B. Variable

In accordance with the research conducted by researchers, the data obtained from the frequency distribution of knowledge of the undergraduate students of the Faculty of Science and Technology, Universitas Respati Yogyakarta as follows:

**Table 4.2 Description Knowledge of Covid-19 and Compliance to Health Protocols of Undergraduate Students of the Faculty of Science and Technology**

Variable	Category	n	%
Knowledge	Good	51	55,4
	Fair	41	44,6
Compliance	Comply	88	95,7
	Not Comply	4	4,3
<b>Total</b>		<b>92</b>	<b>100</b>

Based on table 4.2, was known that more than half, (55.4%) respondents have good knowledge of covid-19. Almost all (95.7%) respondents complied to health protocols.

### C. Bivariate Analysis

The research had bivariate analysis using chi-square (cross-sectional test) to determine whether there is correlation between undergraduate student's knowledge of covid-19 and the Compliance to the health protocol

**Table 4.3 Cross-tabulation of the Correlation between Knowledge of Covid-19 and Compliance to Health Protocols**

Variable	Category	Compliance		Total	%	P-value
		Not Comply	Comply			
		n	%	n	%	
Knowledge	Fair	4	9,8	37	90,2	0,036
	Good	0	0	51	100	
<b>Total</b>		4	88	92	100	

Based on table 4.3 was known that from 41 respondents who had fair knowledge of covid-19, 37 respondents were comply and 4 respondents did not comply to health protocol, while 51 respondents who had good knowledge, all of them complied to the health protocol.

From the bivariate analysis, obtain p-value of 0.036 it was less than 0.05 It means statistically there was correlation between knowledge of covid-19 and compliance to health protocols of undergraduate students of the Faculty of Science and Technology, Respati Yogyakarta University

## DISCUSSION

Based on the gender was known that most (62%) respondents are male. This is because the Faculty of Science and Technology, Respati Yogyakarta University was dominated by male undergraduate students. Gender can affect a person's knowledge directly or indirectly, the male gender tends to have better knowledge than women due to several things such as men having wider activities and being able to socialize better which has the opportunity to gain more knowledge.<sup>3</sup> Other studies also explain that gender also affects knowledge, that men have a higher average than women<sup>4</sup>. Beside that male tend more open minded than female so they are absorbs more information easily than female. So that male had more knowledge than female.

Based on age was known that more than half (52.2%) respondents were 18-21 years old. Undergraduate students usually on age range of 18-25 years who undergo education at universities, polytechnics, academics, institutes and high schools.<sup>5</sup> This is the best time for youth to get as much as knowledge and experience in order to prepare the next life. Age can affect a person's knowledge, getting older a person will get more developed mindset and ability to grab information so that the knowledge gained the better.<sup>6</sup> The age range of 18-25 years can affect knowledge of covid-19 because there are a lot of information about covid-19 from billboards, posters and a lot of information obtained by social media making it possible to get more information as well.<sup>7</sup>

The data of knowledge about covid-19 was known that most (55.4%) respondents had good category although they didn't get the information in class. Information of covid-19 is change quickly day by day delivered to the public as long as pandemic. Therefore it is very easy for respondents to get information about covid-19 from various media such as print media, electronic media and bill boards,<sup>8</sup>

The data of compliance to health protocols was known that almost all (95.7%) respondents complied to the health protocol such as washing hand properly, took distance with others, and no crowd. It was good news that almost all the youth in this research complied to the health protocol. Compliance of the youth can be an example for their peer group. According to the survey from the Central Bureau of Statistics,

In general the community's compliance with health protocols is quite good.<sup>9</sup> Community's compliance is very important to

prevent covid-19 because it is very easy for covid-29 transmit person to person through saliva splash and touching. Community compliance in carrying out health protocols is in the obedient category.<sup>10</sup> With high number of community's compliance means that the community have high awareness it was stated that in general the community's compliance with health protocols is quite good.<sup>9</sup> Community compliance in implementing health protocols is in the compliant category. 10 The availability of adequate facilities and infrastructure is also one that affects a person's adherence to health protocols<sup>11</sup> to prevent covid-19. Compliance to the health protocol need facilities such mask to protect mouth, clean water and soap to wash the hand. Without proper facilities there will no compliance to the health protocol

The Fisher's Exact Test was used to analysis the data of knowledge about covid-19 and the compliance to health protocols. Based on the data of the 51 respondents who had good knowledge, all of them complied the health protocol and of the 41 respondents who had knowledge on fair category, 37 complied and 4 did not comply to the health protocol with a p-value of 0.036, which is smaller than 0.05, It means that statically there was a significant correlation between knowledge of covid-19 and compliance to the health protocol. One of the factors that affect knowledge is information<sup>12</sup>. During pandemic of covid-19 there very much information about covid-19 which was delivered through many various media such as print media, electronic media and bill boards. It was very easy for everyone especially student to access the information. Amount of information about covid-19 currently adds to the knowledge of undergraduate students of the Faculty of Science and Technology, Respati Yogyakarta University.

Other studies that are in line with this study show that knowledge has an effect on compliance to health protocols. It is because someone who have an adequate knowledge of transmitted disease, especially the way to transmit it will bring awareness up that they are on the high risk condition<sup>14</sup>. So that they do the best to prevent the disease on their own. Beside that education and complete information provided continuously by the covid-19 task force have an influence on compliance to health protocols. Message which was delivered repeatedly will change mind set and because of that someone comply to health protocols<sup>15</sup>. Knowledge is the dominant factor that affects a person's compliance<sup>16</sup>. Actually they are some factors influence someone's knowledge such as age, education, job, and experience. However, education is the most firmly embedded on the brain because it was got through learning process usually in the long time. While others factor was got incidentally in line with human growth of life.

## CONCLUSIONS

1. More than half (55.4%) respondents had good knowledge of covid-19 and almost all of them, (95.7%) respondents complied to the health protocol
2. Statistically there is a correlation between knowledge of covid-19 and compliance to health protocols of undergraduate students of the Faculty of Science and Technology, Universitas Respati Yogyakarta University with a p-value of 0.036

## RECOMMENDATION

1. Availability of good and complete information of covid-19 in community needed to develop the compliance to the health protocols in order to prevent covid-19.
2. Government should spread out the information of covid-19 through many media continuously

## REFERENCES

- WHO Coronavirus Disease (COVID-19) Dashboard. <https://covid19.who.int/table>. 2020.
- Wulandari A, Rahman F, Pujianti N, Sari AR, Laily N, Anggraini L, et al. "Hubungan Karakteristik Individu dengan Pengetahuan tentang Pencegahan Coronavirus Diseases 2019 pada Masyarakat di Kalimantan Selatan". *Jurnal Kesehaant Masyarakat Indonesia*. 2020;15(1):42–6.
- Yuliani S. "Gambaran Tingkat Pengetahuan tentang Makanan Kariogenik dan Karies Gigi Molar Pertama pada Siswa Kelas IV SDN 1 Pejog Tampaksiring Gianyar Tahun 2018." Poltekkes Kemenkes Denpasar; 2018.
- Kartika D, Ariwinanti D, Hapsari A. "Gambaran Pengetahuan Kesehatan Reproduksi Siswa SMK Wisnuwardhana Kota Malang". *Indonesia Jurnal Public Health*. 2019;4(1):2–6.
- Hulukati W, Djibran RM. "Analisis Tugas Perkembangan Mahasiswa Fakultas Ilmu Pendidikan Universitas Negeri Gorontalo". *Jurnal Biotetik*2. 2018;02(01):73–114.
- Budiman, Riyanto A. *Kapita Selekta Kuesioner Pengetahuan dan Sikap dalam Penelitian Kesehatan*. Jakarta: Salemba Medika; 2013.
- Natun DA, Junias MS, Sahdan M. "Pengetahuan dan Sikap Pedagang Ikan tentang Upaya Pencegahan Penularan Covid-19 di Pasar Kasih Kota Kupang". *Media Kesehatan Masyarakat*. 2021;3(2):146–50.
- Winarti R, Hartanti S. "Kajian Pengetahuan Mahasiswa Akper Hermina Manggala Husada tentang COVID-19 dan Cara Pencegahannya". *Jurnal Ilmu Keperawatan Altruistik*. 2020;3(2):1–9.
- BPS RI. *Perilaku Masyarakat pada Masa PPKM Darurat*. Jakarta: BPS RI; 2021.
- Mulyawan A, Sekarsari R, Nuraini, Budi E. 'Gambaran Tingkat Kepatuhan Masyarakat dalam Penerapan Protokol Kesehatan Post Vaksinasi Covid-19". *Edu Dharma Jurnal Penelitian dan Pengabdian Masyarakat*. 2021;5(2):43–51.
- Nurianti Y, Heryana A, Mustikawati IS, Sangadji NW. "Persepsi Karyawan terhadap Ketersediaan Fasilitas dan Sarana Penanganan Covid-19 di Tempat Kerja Berhubungan dengan Kepatuhan Protokol Kesehatan". *Jurnal Kesehatan Masyarakat*. 2021;9(4):566–75.
- Haruna SR, Ponseng NA, Rahmadani S, Rosnania, Afrida, Bubun J. *Kepatuhan Masyarakat dalam Penggunaan Masker Sebagai Salah Satu Upaya Pencegahan Covid-19*. Ponorogo: Uwais Inspirasi Indonesia; 2021.
- Latif A, Syafar M, Yusuf A, Asmi AS. "Analisis Faktor yang Berpengaruh terhadap Kepatuhan Pengunjung Warkop pada Protokol Kesehatan Covid19". *Jurnal Ilmu Kesehatan Sandi Husada*. 2021;10(2):380–9.
- Green L W and Kreteur M W; *Health Promotion Planning An Educational and Environmental Approach*. Mayfield Publishing Company. Second Edition. London. 1991
- Hikmah I, Rosyidah H, Adyani K. "Hubungan Pengetahuan

tentang Covid dengan Tingkat Kepatuhan Anak Remaja Menjalankan Protokol Kesehatan di Indonesia". *Jurnal Kesehatan*. 2021;12(3):338–43.

Pangesti NA, Purnamaningsih ER. Analisis Faktor-Faktor yang Mempengaruhi Kepatuhan Protokol Kesehatan Pencegahan Kesehatan Pencegahan Covid-19 pada Keluarga dengan Tahap Perkembangan Anak Usia Sekolah. *Jurnal Ilmu Keperawatan Jiwa*. 2021;4(3):623–32.