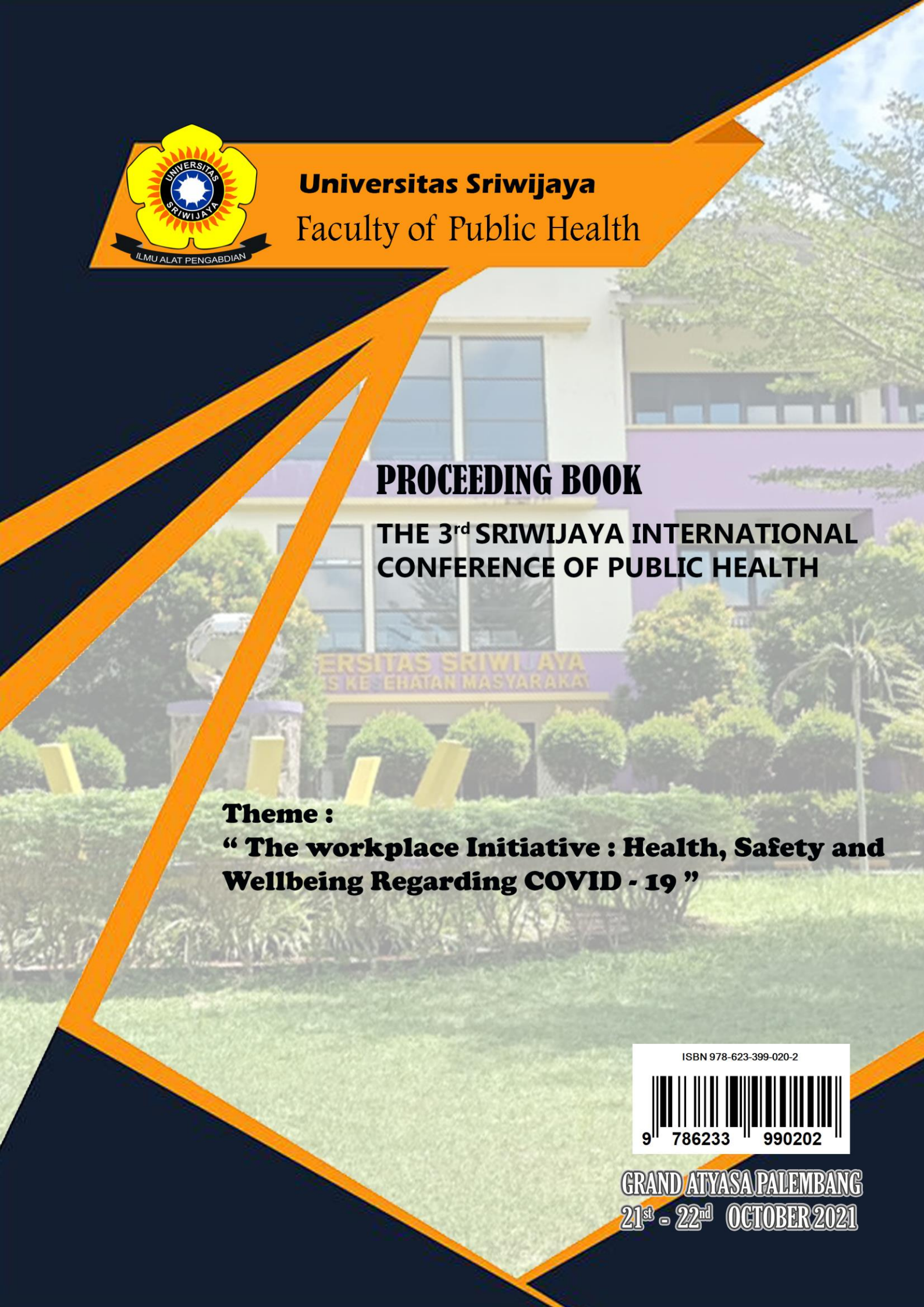

Universitas Sriwijaya

Faculty of Public Health

PROCEEDING BOOK

THE 3rd SRIWIJAYA INTERNATIONAL CONFERENCE OF PUBLIC HEALTH

Theme :

" The workplace Initiative : Health, Safety and Wellbeing Regarding COVID - 19 "

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GRAND ATYASA PALEMBANG

21st - 22nd OCTOBER 2021

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The Work Place Initiative: Health, Safety and Wellbeing Regarding COVID-19

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THE 3rd SRIWIJAYA INTERNATIONAL CONFERENCE ON PUBLIC HEALTH

The Work Place Initiative: Health, Safety and Wellbeing Regarding COVID-19

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PREFACE

On behalf of the organizing committee, I am delighted to welcome you to the 3nd Sriwijaya International Conference on public Health (SICPH 2021) during 21th october 2021 at Palembang South Sumatera, Indonesia. The SICPH 2021 is international conference organized by Faculty of Public Health, Sriwijaya University (UNSRI). I would like to extend my warmest welcome to all the participant of The SICPH 2021 under the theme ***"The Impact of Climate Change on Infectious Disease Transmission".***

The SICPH 2021 consists of keynote sessions from well known expert speakers in the field of public health, and academic paper sessions (oral presentations) who are coming from several region. This conference seeks to bring together academics, public health professionals, researchers, scientists, students and health stakeholders from a wide range of disciplines to present their latest research experience and further development in all areas of public health. We hoped that this conference will be usefull platform for researchers to present their finding in the areas on multidisciplinary realted to public health and health system issues.

This conference will provide opportunities to exchange ideas, knowledge, and development of the latest research among the participants. We will publish the paper as output from the SICPH 2021 in proceeding book with ISBN and selected paper will be published in Jurnal ilmu kesehatan masyarakat- SINTA 3 (a nationally-accredited journal). The SICPH 2021 is being attended by about 50 participants. I hope you enjoy the conference.

With regard to considerable conference agenda, we greatly appreciate any support and sponshorship derived from any govermental as well as private institutions for the success of the conference. Great appreciation is also handed to organizing committe of the conference for any voluntarily effort that bring to the succes of the conference.

The conference committee expresses its gratitude towards all the keynote speakers, authors, reviewers, and participanst for the great contribution to enssure the succes of this event. Finnally, I sincerely thank all the members of the organizing committee who have worked hard to prepare this conference.

Palembang, October 2021

Chair,

Anita Camelia, SKM., MKKK.

PREFACE

First of all, let us thank God, the Almighty, who has given His grace and guidance so that the 3rd Sriwijaya International Conference of Public Health (SICPH) with the theme of The Workplace Initiative: Health, Safety and Wellbeing Regarding Covid:19 can be held successfully. I welcome all of you to this seminar which has received great attention not only from university, but also other communities to submit papers to be presented in this seminar. I express my highest gratitude and appreciation the presenters.

The conference is divided in two session, the first session is speeches and the second session is round table discussion. In the first session, the invited keynote speakers were Prof. Dr. Tan Malaka, MOH, DrPH, SpOk, HIU (A Professor from Medical Faculty Universitas Sriwijaya), Prof. Dr. Retneswari Masilamani (University Tunku Abdul Rahman, Malaysia), Prof.Dr.Joselito L. Gapaz MD, M.PH(University of the Philippines) and Prof. Dr Tjandra Yoga Aditama, MHA,DTM&H, DTCE,SpP(C).FIRS (Professor from Griffith University, Australia)

Of course, this conference activity would not have succeeded without the support of all parties involved, as well as the presence of all participants in all regions in Indonesia and internationally. I especially thank to all the organizing committees for their hard work, perseverance, and patience in preparing and organizing this conference so that it can go well, smoothly and successfully.

Finally, through this conference let us extend the network and cooperation among all stakeholders of the public health sector, especially in Indonesia and in the world in general, to build a better public health world in Indonesia

Thank you for participating in this conference.

Dean of Public Health Faculty,

Universitas Sriwijaya

Dr. Misnaniarti, S.K.M, M.K.M

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UNIVERSITY STUDENTS AWARENESS OF IMPLEMENTING HEALTH PROTOCOL DURING COVID-19 PANDEMIC IN INDONESIA

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ABSTRACT

COVID-19 infection does not recognize both old and young age. Awareness of implementing health protocol is higher in young age groups influenced by frequently exposed to informations from mass media. This study aims to see university students awareness of implementing health protocol in Indonesia. The research was conducted from September to October 2020 using a cross sectional design through an online survey. Non-random sampling was used with the criteria, namely university students in Indonesia, aged 18-24 years, willing to participate in research and completing the questionnaireas many as 3.024 students participated. Chi Square Test Statistical analysis was used to see the relationship between respondents characteristic and the implementation of the Health protocol before and during the COVID-19 pandemic. The results showed that the province was significantly related to the use of masks (p-value 0.041), washing hands (p-value 0.001), and physical distancing (0,006) before the COVID-19 pandemic. The conclusion in this study is that university students in Indonesia have health awareness as it was proven by implementing health protocols recommended by the government in order to prevent transmission of the COVID-19 virus.

Keywords: *health protocol; pandemic; COVID-19; students*

ABSTRAK

Infeksi COVID-19 tidak mengenal usia tua maupun muda. Kesadaran dalam mengimplementasikan protokol kesehatan lebih tinggi pada kelompok usia muda mengingat kelompok ini lebih terpapar terhadap informasi dari media massa. Penelitian ini bertujuan mengetahui kesadaran mahasiswa dalam implementasi protokol kesehatan di Indonesia. Penelitian ini dilakukan pada bulan September-Oktober 2020 dengan desain studi *cross-sectional* melalui survei *online*. Metode penelitian *non-random sampling* dan kriteria inklusi yaitu mahasiswa universitas di Indonesia, berusia 18-24 tahun, bersedia berpartisipasi dalam penelitian dan menyelesaikan pengisian kuesioner dilakukan oleh 3.024 mahasiswa sebagai responden penelitian. Analisis statistik Chi Square digunakan untuk mengetahui hubungan antara karakteristik responden dan implementasi protokol kesehatan sebelum dan selama pandemi COVID-19. Hasil penelitian menunjukkan provinsi berhubungan signifikan dengan perilaku memakai masker (*p-value* 0,041), mencuci tangan (*p-value* o,001) dan menjaga jarak (0,006) sebelum pandemi COVID-19. Kesimpulan pada penelitian ini adalah mahasiswa di Indonesia telah memiliki kesadaran kesehatan dengan mengimplementasikan protokol kesehatan yang direkomendasikan oleh pemerintah untuk mencegah penyebaran virus COVID-19.

Kata kunci: protokol kesehatan; pandemi; COVID-19; mahasiswa

Introduction

Since identified in January 2020, the COVID-19 virus has plagued almost all countries in the world, including Indonesia. COVID-19 is known to attack the respiratory tract and can be transmitted quickly through droplets when someone talks, coughs, or sneezes. A person whom infected with this virus can become a carrier without symptoms, with mild or severe symptoms so that they are able to spread the virus quickly (1). Indonesia is one of the countries with the highest infection cases in Asia. Based on the data as of October 2020, there have been 299,506 positive cases of COVID-19 in Indonesia since the confirmation of the first case on March 2, 2020. This number is increasing every day accompanied by the increasing number of the transmission cluster and deaths due to COVID-19. Indonesian government also issued information regarding risk zones for the spread of COVID-19 in all provinces in Indonesia. These risk zones are divided into five criteria, namely the zone with high risk, medium risk, low risk, no cases and no impact. This is beneficial for the community so that they always monitor the spread of the COVID-19 virus infection. The government has also made a Large-Scale Social Restriction policy, known as PSBB in Indonesia, which is now called Enforcement of Restrictions on Community Activities, known as PPKM in Indonesia, in several cities that have high cases of the spread of COVID-19 infection. According to (2), the implementation of PSBB is effective in reducing the rate of cases of COVID-19 infection. In addition, the PSBB policy raises a sense of concern and mutual cooperation to achieve mutual prosperity during the COVID-19 pandemic (3).

In addition to policies aimed at preventing and cutting off the spread of the COVID-19 virus infection, the government has also carried out massive health promotion by issuing guidelines for preventing and controlling COVID-19 through the Ministry of Health. The appeal given by the government is to carry out a health protocol, i.e. 3Ms which refer to *Memakai Masker* (mask-wearing), *Mencuci Tangan* (handwashing) and *Menjaga Jarak* (physical distancing) (4). Mass media is also used for disseminating information about how to avoid the COVID-19 infection which is in line with (5) research which states that public access to information about COVID-19 can be obtained through TV channels and websites.

Indonesia has youth population of 27.94% (BPS, 2020). The young age group has high frequency of sosializing and doing activities outside home for school and social activities so that they are at high

risk of being infected with the COVID-19 virus. Education cluster is one of the clusters considered to be at risk of becoming a place for the spread of cases of COVID-19 infection. Therefore, the Indonesian government enforces a policy learning from home (online learning) (6). The ability of young people to access valid digital information is an effort that can be done to prevent the spread of COVID-19. In addition, the increasingly high exposure of information media affects the literacy level of young people related to COVID-19 and its prevention efforts (7).

Based on the description above, it is necessary to know what are the attitudes of the young age group, i.e.: undergraduate students in implementing health protocol (maskwearing, handwashing, and physiscal distancing) that have been recommended by the government as an effort to avoid COVID-19 infection before and during the COVID-19 pandemic so that they can be an important part of helping to break the chain of the spread of COVID-19.

Method

This study used an observational design with a cross sectional method. Online questionnaire was created via Google Form and then distributed throughout Indonesia using social networks and the researchers' personal relationship. Data collection was carried out during September - October 2020. The questionnaire was developed based on the health protocol guidelines issued by the Indonesian Ministry of Health regarding the behavior of implementing health protocol and efforts to maintain health during the COVID-19 pandemic completed with demographic data. The questionnaire was made in Indonesia to be easily understood by respondents by asking about conditions before and during the COVID-19 pandemic. Non-random sampling was used with several criteria, namely college students in Indonesia, age range from 18 to 24 years, and their voluntary participation in the research. A total of 3,024 students, from various region in Indonesia like Bali, Nusa Tenggara, Java, Kalimantan, Sulawesi, Maluku, Papua, and Sumatra, participated in this research. Univariate analysis was carried out to see the basic data on respondent characteristics and bivariate analysis was carried out to see the variables related to the attitude of implementing the health protocol. The results of the analysis are presented in tabular form containing the percentage of respondents' answers and their significance value. This research has received a review and ethical permission from ethics commission of Faculty of Public Health, Universitas Sriwijaya, with the code number: 196 / UN9.1.10 / KKE / 2020.

Results

Based on Table 1 below, this study involved 3.024 respondents. These respondents were dominated by 20 year-old respondents as many as 870 people (28.8%). Based on gender, female respondents participated the most in this study, namely 2.564 female students (84.4%). Most respondents came from the Java region as many as 1.054 people (34.8%). Before the COVID-19 pandemic, 1.421 respondents (47.0%) resided in boarding houses, but after the COVID -19 pandemic, most respondents, as many as 2,506 people (82.9%) lived in their parents' homes. The last, there were 2,066 respondents (68.3%) who came from the health and medical fields.

Table 1. Characteristics of Respondents

Variable	Frequency	Percentage (%)
Age group		
18 year	307	10.1
19 year	722	23.9
20 year	870	28.8
21 year	578	19.1
22 year	361	11.9
23 year	122	4.0
24 year	43	1.4
25 year	21	0.7
Gender		
Male	460	15.2
Female	2564	84.8
Region		
Bali, Nusa Tenggara	62	2.1
Java	1052	34.8
Kalimantan	154	5.1
Maluku, Papua	331	10.9
Sulawesi	685	22.7
Sumatera	740	24.5
Home Address (Before COVID-19 Pandemic)		
Parents' home	1353	44.7
Dormitory	1421	47.0
Homestay	250	8.3
Home Address (During COVID-19 Pandemic)		
Parents' home	2506	82.9
Dormitory	324	10.7
Homestay	194	6.4
Field of Science		
Health and Medicine	2066	68.3
Science and Technology	350	11.6
Social Science	288	9.5
Education	275	9.1
Others	45	1.5

Table 2. Implementation of University Students Health Protocol Before COVID-19 Pandemic

	Wearing Mask			Washing Hands			Social distancing		
	Yes	No	P value	Yes	No	P value	Yes	No	P value
Region									
Bali, Nusa Tenggara	28 (45,2%)	34 (54,8%)		52 (83,9%)	10 (16,1%)		7 (11,3%)	55 (88,7%)	
Java	566 (53,8%)	486 (46,2%)		829 (78,8%)	223 (21,2%)		143 (13,6%)	909 (86,4%)	
Kalimantan	81 (52,6%)	73 (47,4%)	**0,041***	123 (79,9%)	31 (20,1%)	**0,001***	15 (9,7%)	139 (90,3%)	**0.006***
Maluku, Papua	156 (47,1%)	175 (52,9%)		289 (87,3%)	42 (12,7%)		54 (16,3%)	277 (83,7%)	
Sulawesi	318 (46,4%)	367 (53,6%)		583 (85,1%)	102 (14,9%)		76 (11,1%)	609 (88.9%)	
Sumatera	373 (50,4%)	367 (49,6%)		587 (79,3%)	153 (20,7%)		66 (8,9%)	674 (91,1%)	
Field of Science									
Health and Medicine	1096 (53%)	970 (47%)		1725 (83.5%)	341 (16.5%)		268 (13%)	1789 (87%)	
Science and Technology	145 (41.4%)	205 (58.6%)	**0,0004***	262 (74.9%)	88 (25.1%)	**0.001***	36 (10.3%)	314 (89.7%)	0,113
Social Science	124 (43.1%)	164 (56.9%)		212 (73.6%)	76 (26,.4%)		20 (6.9%)	268 (93.1%)	
Education	134 (48.7%)	141 (51.3%)		228 (82.9%)	47 (17.1%)		31 (11.3%)	244 (88.7%)	
Others	23 (51%)	22 (49%)		36 (80%)	9 (20%)		6 (13%)	39 (87%)	

Note : *) = p-value < 0,05 showed significant correlation

Table 3. Implementation of Students' Health Protocol during the COVID-19 Pandemic

	Wearing mask			Washing Hands			Social distancing		
	Yes	No	P value	Yes	No	P value	Yes	No	P value
Regional									
Bali, Nusa Tenggara	62 (100%)	0 (0%)		61 (98,4%)	1 (1,6%)		58 (93,5%)	4 (6,5%)	
Java	1045 (99,3%)	7 (0,7%)		1039 (98,8%)	13 (1,2%)		982 (93,3%)	70 (6,7%)	
Kalimantan	153 (99,4%)	1 (0,6%)	0,981	152 (98,7%)	2 (1,3%)	0,859	145 (94,2%)	9 (5,8%)	0,660
Maluku, Papua	328 (99,1%)	3 (0,9%)		328 (99,1%)	3 (0,9%)		307 (92,7%)	24 (7,3%)	
Sulawesi	678 (99%)	7 (1%)		679 (99,1%)	6 (0,9%)		637 (93,0%)	48 (7,0%)	
Sumatera	737 (99,6%)	3 (0,4%)		727 (98,2%)	13 (1,8%)		676 (91,4%)	64 (8,6%)	
Field of Science									
Health and Medicine	2056 (99,5%)	10 (0,5%		2048 (99,1%)	18 (0,9%)		1941 (93,9%)	125 (6,1%)	
Science and	348	2		345	5		320	30	

	Wearing mask			Washing Hands			Social distancing		
	Yes	No	P value	Yes	No	P value	Yes	No	P value
Technology	(99,4%)	(0,6%)		(98,6%)	(1,4%)		(91,4%)	(8,6%)	
Social Science	285 (99%)	3 (1%)	0,224	278 (96,5%)	10 (3,5%)	0,068	256 (88,9%)	32 (11,1%)	**0,005***
Education	272 (98,9%)	3 (1,1%)		271 (98,5%)	4 (1,5%)		251 (91,3%)	24 (8,7%)	
Others	42 (93%)	3 (0,7%)		44 (98)	1 (0,2%)		37 (82%)	8 (18%)	

Note : *) = p-value < 0,05 showed significant correlation

Based on table 2 and 3 above, there were differences in correlation result between health protocols implementation and respondents characteristics before also during COVID-19 pandemic. Table 2 showed that both wearing mask and washing hand had significant correlation with region and field of science before COVID-19 pandemic. Wearing mask had significant correlation with region as well as field of science proved by p-value 0,041 and 0.004 respectively before COVID-19 pandemic. Also, washing hands had significant correlation with region (p-value 0.001) as well as field of science (p-value 0.001) before COVID-19 pandemic. On the other hand, table 3 showed that only social distancing had significant correlation with field of science (p-value 0.005).

Discussion

Based on the result above, it is showed that the implementation of health protocol recommended by the government such as wearing mask, washing hand, and social distancing were known and implemented by to show good health behavior for preventing COVID-19. This was probably because the students had received information or appeals often displayed in several information media, both printed and electronic media (8). Exposure to information media led students to indirectly apply health protocol due to their concerns about the impact of the COVID-19 virus. Based on previous research result, it shown that a change in people's lifestyle to deal with the COVID-19 pandemic was a necessity by implementing health protocol such as wearing mask, washing hands, and doing physical distancing (9,10).

Since the outbreak of COVID-19, public health education has become the most important aspect in preventing and controlling the spread of the virus. One of the community groups playing an important role in the success of public health education is students who have more knowledge. Students are expected to be the role models of their attitudes and practices towards implementing correct health protocol so that they can control the spread of the virus. A survey of 872 undergraduate students found that students tended to have more knowledge regarding COVID-19, a positive attitude, and be more

proactive in carrying out health protocol during the COVID-19 pandemic. This indicated that health education had been successfully conveyed to student groups, especially through online media. (11) and a number of other studies showed that women had better attitudes and knowledge regarding the application of health protocol such as maintaining hand hygiene and wearing masks (12–17).

The application of health protocol carried out by students was also related to good health literacy among students in accordance with the results of previous studies which reported that health literacy was positively associated with knowledge of handwashing and its application during the COVID-19 pandemic in young age groups (18). Good knowledge will affect attitudes and practices such as wearing masks, washing hands, and doing physical distancing in everyday life as an effort to maintain a healthy lifestyle (19). There are also results from research conducted by (20) stated that 74,3 % of respondents agreed that COVID-19 coukd be transmitted through coughing and sneezing, and could be prevented by wearing masks (88,3 %), washing hands (81,7 %), isolating infected patients (95 %), limiting travel to high risk zones (85,6 %), and avoiding touching nose, eyes, and mouth (97,3 %). In line with that, (21) study stated that the implementation of health protocol decreased by 25 % resulting in the emergence of >4.000 new positive cases of COVID-19.

A. Wearing Mask

Table 2 and 3 showed that the practice of wearing masks had been widely applied by students both before and during the COVID-19 pandemic. However, this awareness became more and more increased when the COVID-19 pandemic took place. A similar result was stated by (22) where the use of masks was a dominant behavior change during pandemic. This could be because students already understood the function of mask as an effective barrier system in blocking droplets as potential sources of infection (23). The attitude of wearing mask before the pandemic was closely related to the characteristics of the province of student's origin (p-value 0.041) and knowledge (p-value 0.004). Understanding health protocol and efforts to prevent COVID-19 virus infection are important things to protect young age groups and those around them. (24) showed that the use of masks at the community level contribute to the COVID-19 virus spread.

B. Washing Hands

The government advocates handwashing with soap, called CTPS in Indonesia as an important effort in preventing the spread and infection of COVID-19. Table 2 and 3 of result indicated that

washing hands had also been widely practiced before and during COVID-19 pandemic. Before the COVID-19 pandemic, the attitude of washing hands was closely related to the characteristics of the province of students origin (p-value 0.001) and knowledge (p-value 0.001). However, during the pandemic the attitude of washing hands increased. This showed that the promotional effects carried out by the government were successful. This is in line with a study conducted by (25) which reported the program persuaded the public to wash their hands frequently to slow down the spread of COVID-19. In addition, (26) stated that the habit of washing hands plays a role in preventing the nosocomial transmission of the COVID-19 virus. Hand washing is an effective way to kill the COVID-19 virus that sticks to hands after touching objects infected by droplets (27).

C. Practicing Social Distancing

Keeping space with other people minimum 1 metre away is part of the health protocol recommended by the government to prevent the spread of the COVID-19 virus. (25) also added that if the community does not apply the rules of physical distancing, there will be an increase in the number of people infected COVID-19 virus. In addition, avoiding crowds is not less important as an effort to break the chain of the spread of COVID-19 (28). In table 2 and 3, the variables that had a significant relationship with the practice of physical distancing before the pandemic were the province (p-value 0.006), and during pandemic was field of science (p-value 0.005). This is in line with the results of research conducted by (29) that students had positive perceptions in the prevention and control of COVID-19, especially students majoring in health field. Physical distancing is also a way that can be done to reduce the spread of the COVID-19 virus in a group of people because it can minimize crowd interaction in that group. Through this behavior, the reproduction rate (R0) can be reduced in a community (30).

Previous studies also reported that students from public health and medical programs showed higher results related to knowledge of COVID-19 (12–17). Their responsibility for handling the spread of the COVID-19 virus makes medical and health students had a positive attitude and be more active during times of emergency (31). This is in line with the results of research that students from the health sector and women had a higher awareness of health protocol.

This study has a number of limitations, namely that the subjects were not selected using the randomization method. Thus, questionnaire completion was only based on volunteerism. This resulted in the high participation of the students who had high awareness only. In addition, there were a number of

provinces in Indonesia had no respondents as the research subject. This research, thus, may not be representative in those provinces. It is necessary, therefore, to conduct other research investigating implementation of the health protocol using a representative sample proportionally from each province according to the risk zone for the spread of COVID-19 in Indonesia.

Conclusion

The university students had carried out awareness of implementing health protocol in Indonesia. This practice was as an effort of individuals to protect themselves from the transmission of the COVID-19 virus infection. Thus, the researchers suggests for conducting further research using a representative sample proportionally in each province according to the risk zone for the spread of COVID-19 in Indonesia.

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We would like to thank all respondents for their participation in this research and friends also colleagues for their great help in distributing the research questionnaire.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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