ORIGINAL ARTICLE

The Physical Symptoms and Risk Factors of COVID-19 Among Academic Community During the Large-scale Social Restriction Period in the Faculty of Medicine UPN Veteran Jakarta

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ABSTRACT

Introduction: The covid19 virus is still massively spreading in Indonesia. In early July 2020, 34 provinces, resulting in 57,770 positive cases, 25,595 recovered, and 2,934 died. Large-scale Social Restriction (LSSR) is currently implemented in Indonesia in response to the pandemic. Students, lecturers, and education personnel as an academic community must work online to reduce COVID-19 transmission on the campus. During the LSSR, the academic community tends to mingle with the surrounding community rather than limiting themselves to the campus community, this will eventually cause an epidemic among themselves. Objectives: The objective is to define the physical symptoms and risk factors of COVID-19 on the academic community during LSSR on May 14th-29^{th,} 2020. **Methods:** This cross-sectional study included 599 participants who sent back the informed consent forms. The variables were age, gender, zoning, screening test, contact tracing, the desire to receive any information, education, and communication on the virus, and any physical symptoms. **Results:** Physical Symptoms of COVID-19 had significant relationship with screening test (OR=1.19; 95% CI=1.25 to 3.63; p=0.005) and contact tracing (OR= 1.75; 95% CI=1.30 to 2.85; p=0.000). **Conclusion:** Screening status and contact tracing can be used as predictions to see COVID-19 physical symptoms, while areas zoning can be used to determine which location should be prioritized for screening and contact tracing. Follow up is needed to actively carry out screen tests for antibodies or PCR swabs before the university can be reopened.

Keywords: COVID-19 Physical Symptoms, Academic Community, Large-scale Social Restriction

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INTRODUCTION

When the discovery of two positive COVID-19 cases was announced for the first time by the government in March, all activities at Faculty of Medicine, UPN Veteran Jakarta must be done online. Large-scale Social Restriction or LSSR is currently implemented in Indonesia in response to the COVID-19 pandemic. LSSR refers to the limitation of certain activities in an area suspected of being infected with a disease and/or contaminated to prevent the possibility of spreading (1). During the LSSR period, the academic community continued to study and work from their homes to inhibit the spreading of the virus. They must adhere to the health protocols set by WHO and the COVID-19 Handling Task Force (2,3). The objective is to define COVID-19 Physical Symptoms and risk factors through screening the academic community during the LSSR period (4).

In Indonesia in early July 2020, there are 57,770 positive cases with 25,595 patients have recovered and 2,934 died (3). Epidemic risk mapping on data of many provinces and districts eventually declares several areas as the red zone as those locations have the highest rates of transmission (5). WHO suggests a combination of measures including rapid diagnosis and immediate case isolation, continuous contact tracing, and self-isolation for people with close contact with positive SARS-CoV-2 cases (1). COVID-19 cases started with moderate symptoms that improved 8-10 days

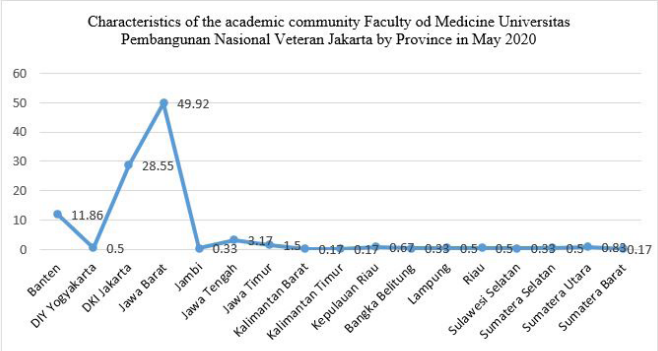
after onset. Testing will detect individual infections, followed by cluster detection, contact tracing, and necessitating self-isolation in people who had close contact with positive SARS-CoV-2 cases.

MATERIALS AND METHODS

The research was an analytical observational study, data was carried out during LSSR on the 14th-29th of May 2020. The total sampling applied a consecutive technique where the form link was spread to the academic community, out of 602 samples 599 participants had met the inclusion and exclusion criteria. Inclusion criteria (s) consist of active students, lecturers and education staff in 2020, willing to answer questions as an effort to take prevention efforts, while respondents who did not fill out the g-form completely included in the the exclusion criteria. The measured variables were age, gender, zoning, a screening test for COVID-19, contact tracing, the desire to receive any information, education, and communication on the virus, and the will to consult any physical symptoms. The aim is to define the physical symptoms and risk factors of COVID-19 on the academic community during LSSR on May 14th-29th, 2020. Data analysis is done through discussion of results and graphs and analysis by SPSS.

RESULTS

We can see from Fig. 1 Characteristics of the academic community Faculty of Medicine UPN Veteran Jakarta by Province, The academic community in the F aculty of Medicine of UPN Veteran Jakarta dominates from West Java Province by 49.92% compared to the DKI Jakarta area of 28.55%.



Source: Analysis based on our primary data survey, 2020

Fig. 1 : Characteristics of the academic community., Faculty of Medicine UPN Veteran Jakarta by Province.

Table I Characteristics of the academic community respondents at the Faculty of Medicine UPN Veteran Jakarta in May 2020 explained that the age group was dominant in adults aged 20- 60 years (70.12%). Almost all the academic community lived in the red zone (99.33%). There were 93.16% who have not carried out an RT-PCR, few have done both, 0.67%. The academic community who did not make tracing efforts was 93.49%, mostly in good health of 80.80%, but there were 19.03% suspected of COVID-19 and 0.17% with close contact status. The respondents were dominated by 69.95% of women, and there were 50.25% of respondents who were not willing to be given information, education, and communication (IEC) during this pandemic while 86.81% of participants were students.

Table I : Characteristics of the academic community respondents at the Faculty of Medicine UPN Veteran Jakarta in May 2020

Variable	Frequency (N)	Percentage (%)
Age		
Adolescent (11-19 years)	178	29.72
Adult (20-60 years)	420	70.12
Elderly (> 60 years)	1	0.17
Area Zoning		
Red Zone	595	99.33
Non-Red Zones	4	0.67
Screening Test Taken		
RT/No Swab Test	4	0.67
RT/No Swab Test	35	5.84
No RT/Swab Test	2	0.33
No RT/No Swab Test	558	93.16
Contact Tracing		
Present	39	6.51
Absent	560	93.49
Physical Symptoms		
Healthy	484	80.80
Suspected	114	19.03
Close Contact	1	0.17
Gender		
Female	419	69.95
Male	180	30.05
IEC education	Ed	
Willing	298	49.75
Unwilling	301	50.25
Status		
Lecturer	17	2.84
Student	520	86.81
Educational Staff	62	10.35

While on Table II Relationship between Characteristics of Respondents and Physical Symptoms in the academic community of the Faculty of Medicine

Table II : Relationship between Characteristics of Respondents and Physical Symptoms in the academic community of the Faculty of Medicine UPN Veteran Jakarta during the COVID-19 Pandemic in May 2020

Variable	Physical Symptoms			p-value	OR 95% CI
	Close Contact	Suspected	Healthy		
Gender					
Male	1 (0.56%)	33 (18.33%)	146 (81.11%)	0.302	1.02 (0.65-1.60)
Female	0	81 (19.33%)	338 (80.67%)		
Age					
Adolescent	0	25 (14.04%)	153 (85.96%)	0.302	0.63(0.29-2,62)
Adult	1 (0.24%)	89 (21.19)	330 (78.57%)		
Elderly	0	0	1 (100)		
Zoning of areas					
Red Zone	1 (0.17%)	114 (19.16%)	480 (80.67%)	0.620	1.09 (0.725-1.69)
Non-Red Zone	0	0	4 (100%)		
Screening test taken					
RT/ Swab	0	1 (25%)	3 (75%)	**0.005***	**1.19 (1.25-3.63)**
RT/No Swab	1 (2.86%)	1(11.43%)	30 (85.71%)		
No RT/Swab	0	1 (50%)	1 (50%)		
No RT/ No Swab	0	108 (19.35%)	450 (80.65%)		
Contact Tracing					
Present	1 (2.56%)	5 (12.82%)	33 (84.62%)	**0.000***	**1.75 (1.30-2.85)**
Absent	0	109(19.46%)	451 (80.54%)		
IEC Education					
Willing	0	56 (18.79%)	242 (81.21%)	0.600	0.94 (0.63-1.42)
Unwilling	1 (0.33%)	58 (19.27%)	242 (80.40%)		

UPN Veteran Jakarta during the COVID-19 Pandemic in May 2020, the status of screening test had a significant relationship with the physical symptoms felt by the academic community with a p-value of 0.005. The screening group had carried out an RT-PCR test gave 25% of the respondents a COVID-19 suspect status while 75% were declared healthy, the group with a rapid test and physical symptoms had close contact with those having positive status (2.86%), 11.43% were suspected, and 85.71% were healthy.

Contact tracing had a significant relationship with physical symptoms with a p-value of 0.000. The academic community who did contact tracing was found to be having a close contact of 2.56%, 12.82% was suspected and 84.62% was healthy. In the group that did not do contact tracing, the suspected cases were higher of 19.46%. Gender with close contact status was found in men (0.56%), with the most suspected status was found in women (19.33%).

The zoning in May 2020 was divided into 2 groups, namely the red zone and the safe zone (5). Close contact status was found in the red zone 0.17%, where 19.16% was declared as suspects, and 80.67% declared healthy. Groups in safe zone locations were still in good health. Respondents who did not want to be given any Information, Education, and Communication about COVID-19 even though their status was close contact was 0.33%. The suspected status (19.27%) was high and the healthy group was willing to be given IEC education was 81.21%.

DISCUSSION

Prediction of physical symptoms of the suspected and close contact group was related to the status of screening and contact tracing carried out by the academic community of Faculty of Medicine UPN Veteran Jakarta (with p-value <0.05) Contact tracing is usually used to identify positive cases of SARS-CoV-2 especially those who have not been positive.

Along with screening and contact tracing, zoning of areas can also describe the condition of the physical symptoms felt by the academic community of Faculty of Medicine UPN Veteran Jakarta, in which the group in the red zone with close contact and suspected

status, their status is high. The status was lower in the group in the red zone than the group that was not in the red zone (5, 9).

CONCLUSION

The status of screening and contact tracing can be used as a prediction to see the physical symptoms of COVID-19, the zoning of areas can also be used as an overview to prioritize screening and contact tracing. Prevention to control the transmission of SARS-CoV-2 must still be done more actively and vigorously, including the use of masks, hand sanitizing, social distancing, rapid testing, contact tracing, and self-isolation for individuals who test positive for SARS-CoV-2. More attention for self-isolation in people with close contact with SARS-CoV-2 positive are some of the things that important to do to prevent transmission.

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