ACEHNESE AWARENESS OF PHYSICAL DISTANCING POLICY DUE TO COVID-19

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Abstract

Corona Virus Disease 2019 (Covid-19) has spread to more than 190 countries around the world. Covid-19 in Indonesia was first reported on March 2, 2020, i.e. as much as 2 cases. As of June 12, 2020, there were 36.406 confirmed cases (positive) and 2048 deaths cases. In Aceh, as of June 12, 2020, there were 115 total cases with 20 confirmed cases (positive) and 1 death case. In dealing with Covid-19, Indonesia Government has issued various policies based on studies of expertise and direction from the World Health Organization (WHO). One of the policies is to implement Physical Distancing. This policy becomes a challenge to be implemented in Indonesia. The Aceh Provincial Government also urged citizens to implement this policy. This study conducted to see the factors affecting Acehnese awareness in implementing Physical Distancing policy. The result shows that it is significantly affected by job factor, whereas other factors such as age and salary have no significant effect.

Keywords: Covid-19; Society Awareness; Public Awareness; Physical Distancing

Abstrak

Virus Covid-19 telah menyebar ke lebih dari 190 negara di dunia. Covid-19 di Indonesia pertama kali dilaporkan pada 2 Maret 2020 yaitu sebanyak 2 kasus. Hingga 12 Juni 2020, terdapat 36.406 kasus terkonfirmasi (positif) dan 2048 kasus kematian. Di Aceh, per 12 Juni 2020, terdapat total 115 kasus dengan 20 kasus terkonfirmasi (positif) dan 1 kasus kematian. Dalam menangani Covid-19, Pemerintah Indonesia telah mengeluarkan berbagai kebijakan berdasarkan kajian keahlian dan arahan dari Organisasi Kesehatan Dunia (WHO). Salah satu kebijakannya adalah dengan menerapkan *physical distancing social*. Kebijakan ini menjadi tantangan untuk diterapkan di Indonesia. Pemerintah Provinsi Aceh pun mengimbau warganya menerapkan kebijakan ini. Penelitian ini dilakukan untuk melihat faktor-faktor yang mempengaruhi kesadaran masyarakat Aceh dalam menerapkan kebijakan menjaga jarak fisik. Hasil penelitian menunjukkan bahwa faktor pekerjaan dipengaruhi secara signifikan, sedangkan faktor lain seperti umur dan gaji tidak berpengaruh signifikan.

Kata Kunci: Covid-19; Kesadaran Masyarakat; Kesadaran Publik; Jarak Fisik.

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INTRODUCTION

Corona Virus Disease 2019 (Covid-19) is now pandemic and has been spread to more than 190 countries. This pneumonia case is still a mystery. The case was first reported in Wuhan, Hubei Province, China. The source of transmission of this case is still unknown, but the first case was linked to the fish market in Wuhan (Rothan, 2020: 3).

In Indonesia, Covid-19 was first reported on March 2, 2020, i.e. as much as two cases (WHO, Situation Report, who.int, March 15th 2020), although there were likely undetected cases previously. Data for June 12, 2020, shows that there were 36406 confirmed cases (positive) and 2048 deaths cases. Mortality rates of COVID-19 in Indonesia were 8.9%. It was the highest in Southeast Asia. As of June 12, 2020, Aceh Province had 115 total cases with 20 confirmed cases (positive) and 1 death case.

In dealing with Covid-19, Indonesia Government has issued various policies based on studies of expertise and direction from the World Health Organization (WHO). One of the policies is to implement Physical Distancing. This policy is more precise than the term Social Distancing, conforming with released by WHO that the term Physical Distancing is considered more appropriate to be applied in the current conditions. Minimizing the spread of the virus is enough by limiting physical activity between individuals without the need for social restrictions among the people. The term of Physical Distancing is corresponding with no need to diminish social activities. It is enough to maintain physical distance so that the Covid-19 outbreak is not contagious. Other preventative measures, such as washing hands, closing mouth when coughing and sneezing, and avoiding touching eyes, nose, and mouth, must be obeyed (Wisnusyah, Physical Distancing, Apa Bedanya Dengan Social Distancing?, jurnalposmedia.com, May 13th 2020). Non-compliance and low awareness of the society to keep distance or to implement Physical Distancing policy will be life-threatening.

To be implemented in Indonesia, Physical Distancing policy has become a challenge. Previous research revealed that the biggest problem in Indonesia today is the lack of awareness about the dangers of Covid-19 and

the appealing of Indonesia Government to minimize mobility and travel outside the home was difficult to implement (Yunus, 2020: 227-238). Like other regions, the Aceh Provincial Government urged its citizens to compliance Physical Distancing policy. However, in the field conditions, it turned out that the spread of Covid-19 was not harmonized with public awareness in complying Physical Distancing policy. This is due to the large number of societies that work in the informal sector and require them to keep going out of the house. On the other hand, some formal sector workers also have their respective responsibilities with the work in their office (Novida, 2020: 194). Therefore, Acehnese awareness of Physical Distancing policy was closely related to the job, age, and salary factor. Thus, the researcher conducted a study of these factors in affecting the compliance of Physical Distancing policy awareness in Aceh Society.

METHOD

This study is designed by using quantitative research. Quantitative research methods interpreted as research methods based on the philosophy of positivism, used to examine specific populations or samples (Sugiyono, 2011: 7). Sampling techniques are generally carried out randomly (random sampling), data collection is by using research instruments, and data analysis is quantitative/statistical to test the hypothesis that has been set.

Sample is part of the number and characteristics possessed by the population (Sugiyono, 2011a: 7). Sample is a portion of the population whose characteristics are to be investigated and can represent the entire population so that the number is less than the population. Slovin formula (Sevilla, 2007: 85) widely used to calculate the minimum sample size to represent a population and it is mathematically formulated as follows:

$$n = \frac{N}{1+Ne^2} \qquad (1)$$

where n is sample size, N is population size, and e is the error tolerance.

In this study, primary data obtained directly by researchers by distributing questionnaires using Google Forms, while the secondary data

sources are books, literature, articles, journals, and sites on the internet that are related to the research conducted. Data collected are information about the awareness of Physical Distancing (qualitative/categorical), age (quantitative/numerical), job (qualitative/categorical), and salary (quantitative/numerical).

The analysis method used in this study is Logistic Regression with logit model. Logistic regression is a statistical model used to analyze relationship patterns between independent variables and categorical or qualitative dependent variable. In logistic regression analysis, the dependent variable may be dichotomous (two categories), unordered polytomous or polytomous nominal (three or more categories with no natural ordering among the categories, or ordered polytomous or polytomous ordinal (three or more categories with natural ordering among the categories) (Scott, 2010: 63). Mathematically, the logit model can be written as follows:

$$\pi_i = \frac{e^{\beta_0+\beta_1 X_1+\beta_2 X_2+\cdots+\beta_p X_p}}{1+e^{\beta_0+\beta_1 X_1+\beta_2 X_2+\cdots+\beta_p X_p}} \qquad (2)$$

where π_i is the i-th logit model, $i = 1,2,\ldots,i,$ X_j is the j-th independent variable, β_j is the j-th constant, and $j = 1,2,\ldots,p.$

RESULT AND DISCUSSION

Result

Aceh Central Bureau on *Statistics* reported that the total amount of Aceh society is 5,371,532 people (BPS, Provinsi Aceh, aceh.bps.go.id., June 8th 2020). By using equation (1), the minimum sample size to represent this population is calculated as follows (10% error tolerance):

$$n = \frac{5371532}{1+(5371532)(10)^2} = 99,99 \approx 100 \; samples \qquad (2)$$

Thus, sample dataset used in this work is 100 data collected with non-probability sampling methods (convenience sampling). Data analyzed using Logistic Regression with Logit Model. The variables used are Y as dependent variables and X_1, X_2 and X_3 as independent variables. The variables are described as follows:

Y = the awareness of Physical Distancing (aware, not aware),

X_1 = age,

X_2 = job (students; entrepreneurs, traders, farmers; lecturers, teachers, doctors),

X_3 = salary (less than 1 million rupiah; between 1 million rupiah and 2.99 million rupiah; between 3 million rupiah and 5 million rupiah; more than 5 million rupiah).

The analysis starts by generating models and selecting significant independent variables. The first iteration is $Y \sim X_1 + X_2 + X_3$ model and the output can be seen in Table 1.

Table 1 Iteration 1 ($Y \sim X_1 + X_2 + X_3$ model)

Variables	Estimate	Standard Error	Z- value	Pr(>|z|)
(Intercept)	-0.65040	1.10421	-0.589	0.556
Age	0.02110	0.06671	0.318	0.751
Job	2.60493	1.15486	1.390	0.265
Salary	-0.23801	0.46725	-0.509	0.610

By using $\alpha = 0.05$, all independent varibales (Table 1) are not significant (>0.05). It means that age variable with p-value = 0.751 has to be eliminated from the model. The next stage is continued to the second iteration using $Y \sim X_2 + X_3$ model and the result can be shown in Table 2.

Table 2 Iteration 2 ($Y \sim X_2 + X_3$ model)

Variables	Estimate	Standard Error	Z- value	Pr(>|z|)
(Intercept)	-.04970	0.9772	-0.509	0.611
Job	1.8823	0.9120	2.064	0.039
Salary	-0.2439	0.4655	-0.524	0.600

By using $\alpha = 0.05$, all independent variables (Table 2) are not significant (>0.05). It means that salary variable with p-value = 0.600 has to be eliminated from the model. The stage is continued to the third iteration using $Y \sim X_2$ model and the result can be shown in Table 3. By using

$\alpha = 0.05$, job variable's p-value $= 0.600 < 0.05$ (see Table 3). It means that job variable is significant.

Table 3 Iteration 3 ($Y \sim X_2$ model)

Variables	Estimate	Standard Error	Z- value	Pr(>|z|)
(Intercept)	-0.6150	0.9724	-0.632	0.5271
Job	1.7353	0.8778	1.977	0.0481

Discussion

Corona Viruse Disease 2019 (Covid-19)

A descriptive study shows the etiology of a new coronavirus (Ren, 2020: 1015-1024). Initially, the disease was named as the 2019 novel coronavirus (2019-nCoV), then World Health Organization (WHO) announced a new name on February 11, 2020, i.e. Coronavirus Disease 2019 (Covid-19). This virus is caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) virus (WHO, Naming the Coronavirus Disease (Covid-19) and the Virus That Causes it, who.int, Marchr 29th 2020). The first coronavirus was identified in 1960, as a case similar to the flu. Canada conducted a study, that there were similar cases in 2001 with 500 cases and some severe cases of acute respiratory syndrome caused by coronavirus and causing the death of more than 1000 patients were reported in 2003 (Kumar, 2020: 8).

A report published on January 24, 2020, states that patients infected by Covid-19 have common symptoms such as fever, cough, and fatigue. Besides that, there are symptoms of diarrhea and dyspnea, but not commonly found. Bronchoalveolar-lavage fluids sample were collected in China. The coronavirus was detected in blood samples and was not detected in feces and urine samples (Zhu, 2020: 730).

The spread of Covid-19 is now derived from human to human transmission, so that the spread becomes more aggressive. Covid-19 transmission from symptomatic patients occurs through droplets that come out when coughing or sneezing. Covid-19 is a new disease that has become

a pandemic. This disease must be wary of because of relatively rapid transmission, has a mortality rate that cannot be ignored, and the absence of definitive therapy (Susilo, 2020: 63).

Early research proves the transmission of this virus from human to human has occurred since mid-December 2019 (Li, 2020: 1199). Current knowledge results that most of its sources come from similar coronaviruses, which are transmitted from human to human via the respiratory tract. Usually, viruses that transmit from breathing are very contagious, but no specific symptoms are found at the outset. If it causes symptoms, it is usually characterized by a fever that reaches a temperature of 37.3 degrees Celsius. Symptoms continue to resemble those of pneumonia (Zhou, 2020: 1056). In further research, more and more evidence shows that human-to-human transmission may occur during the incubation periods during the COVID-19 phase, which is estimated to start from day 2 to day 10 (Sohrabi, 2020: 72).

Physical Distancing Policy in Aceh

Covid-19 currently has become a major threat worldwide, including in Aceh. There is an urgent need and the right approach to prevent and monitor the replication and spread of the virus at this time. There is little evidence on how Covid-19 can be handled. For this reason, it is important to protect yourself by continuing to carry out Social Distancing in order to minimize the spread of this pandemic (Bueno, 2020: 33). In the application of Social Distancing, sufficient knowledge is needed to understand the importance of maintaining a safe social distance during a pandemic, because if it is not, the worse will be happened (Maharaj, 2012: 1-16).

To minimize and even break the Covid-19 infection chain, Indonesia Government follows the WHO policy to implement Social Distancing. Conducting Social Distancing is one of the community mitigation steps that can be recommended during the pandemic. Social Distancing can minimize the transmission of the virus by minimizing frequency in socially crowded communities, such as schools, workplaces, or markets. Previous research conducted a systematic review to assess the evidence that Social Distancing

at work (non-health) can minimize or slow down the transmission of viruses with influenza symptoms (Ahmed, 2018: 1-13). The government in this case must also take firm action in its application to protect its citizens from this pandemic. Including providing adequate health facilities for its citizens (Adolph, 2020: 1-19).

The term of Social Distancing was then reformed with the term of Physical Distancing. This is more precise than the term Social Distancing, conforming with released by WHO that the term Physical Distancing is considered more appropriate to be applied in the current conditions. Minimizing the spread of the virus is enough by limiting physical activity between individuals without the need for social restrictions among the people. One must maintain a safe distance from other humans at least two meters, using mask, not make direct contact with others, and avoid mass meetings. WHO, in its released, said that this step is not to cut off someone's activities, but expects the public to be orderly and more maintain their security (Harsa, Physical Distancing Istilah Baru dari Social Distancing Dalam Menangkal Penyebaran Covid-19, www.whiteboardjournal.com, June 11th 2020). The term of Physical Distancing is corresponding with no need to diminish social activities. It is enough to maintain physical distance so that the Covid-19 outbreak is not contagious.

On March 12, 2020, WHO announced Covid-19 outbreak pandemic (WHO, WHO Director-General's Opening Remarks at the Media Briefing on COVID-19, who.int, March 11th 2020). Until June 2020, the Covid-19 confirmed cases in Indonesia continues to rise. Aceh Province is one of the provinces in Indonesia with a small number of Covid-19 cases, even on end of May and early of June 2020, for 12 days Aceh had no new patient under surveillance cases. However, on June 10, 2020, the Government of Aceh released a new case of Covid-19 (CNN Indonesia, Pasutri di Lhokseumawe Positif Corona, Rekor Aceh Terhenti, www.cnnindonesia.com, June 12th 2020).

Covid-19 pandemic is a form of hazard that potentially threatening to all living aspects including socio-economic. Social vulnerability decreases productivity, makes livelihoods disruption, and arises social anxiety disorders, such as panic. These underlie that instructions on Physical

Distancing do not work effectively in society. To be implemented in Indonesia, Physical Distancing policy has become a challenge.The spread of Covid-19 was not harmonized with public awareness in complying Physical Distancing policy. This is due to the large number of societies that work in the informal sector and require them to keep going out of the house. Physical distancing instruction is considered to create social vulnerability, especially for informal workers who earn daily income and do not have a fixed base salary, such as online traders and online taxi driver (Syaifudin, Covid-19, Kerentanan Sosial, dan Gagalnya Physical Distancing, kolom.tempo.co., April 21th 2020). Therefore, Acehnese awareness of Physical Distancing policy was closely related by the job, age, and salary factor.

CONCLUSION

The conclusion leads to the awareness of Physical Distancing policy in Aceh society is significantly affected by job variable, whereas other variables such as age and salary have no significant effect. The results of this study are in conformity with the field conditions in Aceh Society. A large number of informal workers and some formal workers require to keep going to work due to their respective responsibilities. For Civil Servants or office workers, doing Physical Distancing is much easier than workers in the informal sector.

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