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Knowledge, Attitudes, and Behaviors among Office Workers about COVID-19 Prevention

Conocimientos, Actitudes y Comportamientos de los Oficinistas sobre la Prevención de la COVID-19

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SUMMARY

Introduction: The number of positive cases of COVID-19 in office clusters makes the government implement health protocols that are useful to prevent exposure to COVID-19 while working. Health protocols are self-protection measures to prevent COVID-19 transmission. Health protocol measures include washing hands, maintaining distance, and avoiding crowds. This study aimed to identify knowledge, attitudes, and preventive behaviours in office workers about preventing COVID-19.

Methods: This research uses a correlational descriptive design with a cross-sectional approach. The population of this study amounted to 84 employees of university workers in one of the universities in Malang City, Indonesia. The sample in this study amounted to 69 employees of the University in Malang. The inclusion criteria in this study are employees from accounting, students' administration officer, research officer, learning center, student center, library, and campus security. Spearman rank was used to analyze the data.
Results: The results in this study mentioned that the level of knowledge of employees have good knowledge (75.4 %), who have a positive attitude (97.1 %), and low-risk preventive behaviour (56.5 %), which means having good behaviour in the prevention of COVID-19. There is a correlation or relationship between knowledge variables and office employees' attitudes toward COVID-19 prevention.
Conclusion: Conclusions on employees of the university site have a good level of knowledge and preventive behaviour and a positive attitude towards preventing COVID-19.

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RESUMEN

Introducción: *La cantidad de casos positivos de COVID-19 en clústeres de oficinas hace que el gobierno implemente protocolos sanitarios que son útiles para prevenir la exposición al COVID-19 en el trabajo. Los protocolos sanitarios son medidas de autoprotección para evitar la transmisión de la COVID-19. Las medidas del protocolo de salud incluyen lavarse las manos, mantener la distancia*

y evitar aglomeraciones. Este estudio tuvo como objetivo identificar conocimientos, actitudes y comportamientos preventivos en oficinistas sobre la prevención de la COVID-19.
Métodos: *Esta investigación utiliza un diseño descriptivo correlacional con un enfoque transversal. La población de este estudio ascendió a 84 empleados de trabajadores universitarios en una de las universidades en la ciudad de Malang, Indonesia. La muestra en este estudio ascendió a 69 empleados de la Universidad de Malang. Los criterios de inclusión en este estudio son empleados de contabilidad, oficial de administración de estudiantes, oficial de investigación, centro de aprendizaje, centro de estudiantes, biblioteca y seguridad del campus. Se utilizó el rango de Spearman para analizar los datos.*
Resultados: *Los resultados en este estudio mencionaron que el nivel de conocimiento de los empleados tiene buen conocimiento (75,4 %), que tienen una actitud positiva (97,1 %) y un comportamiento preventivo de bajo riesgo (56,5 %), lo que significa tener un buen comportamiento en la prevención de la COVID-19. Existe una correlación o relación entre las variables de conocimiento y las actitudes de los empleados de oficina hacia la prevención de la COVID-19.*
Conclusión: *Se concluye que los empleados de la sede universitaria tienen un buen nivel de conocimiento y comportamiento preventivo y una actitud positiva frente a la prevención de la COVID-19.*

Palabras clave: *Actitudes, COVID-19, conocimiento, oficinistas, conducta preventiva*

INTRODUCTION

Coronavirus Disease (COVID-19) is a new disease that attacks the respiratory tract caused by the new coronavirus. The first confirmed virus case was in December 2019 in Wuhan City of the Hubei Province of the People's Republic of China (1). The most common symptoms caused are fever, cough, and fatigue, while the accompanying symptoms are the production of phlegm, headache, diarrhea, dyspnea, and hemoptysis (2). For groups of people with other health problems such as cardiovascular disease, chronic respiratory diseases, diabetes, and cancer, if you experience COVID-19 infection, they can experience more severe problems (3). The spread of COVID-19 from human to human has become the primary transmission source, so the spread of this virus occurs very aggressively (4).

COVID-19 was designated an international outbreak by World Health Organization (WHO) in November 2020 as many as 3.6 million new confirmed cases, and death cases increased by 21 % to 54 000 due to the increasing number of positively confirmed cases worldwide (5). In Indonesia, cases of people confirmed positive for COVID-19 on 30 November 2020, as many as 538 883 cases, cured 450 518, and died 16 945 (6). In East Java, as of 30 November 2020, the number of people confirmed positive for COVID-19 increased by 400 people. As a result, the cases of COVID-19 positive people in East Java reached 61 883 people (7). Data in the Malang area as of 30 November there were 2277 people confirmed positive COVID-19 (8).

Prevention of COVID-19 is focused on the pattern of community behaviour, one of which is implementing Large-Scale Social Restrictions (PSBB) (9,10). PSBB is applied to limit various social activities that include the involvement of schools and workplaces, restrictions on religious activities, and the logging of activities in public facilities (9,11,12). Based on this phenomenon, the Government of Indonesia appealed for extra preventive behaviour to protect themselves from exposure to COVID-19 that needs to be considered for office workers. One way workers can apply to prevent exposure to COVID-19 includes using personal protective equipment (PPE) and implementing health protocols (13). However, although the PSBB is considered effective, this strategy also negatively impacts the economy. As a result, economic activity becomes paralyzed, many workers are laid off and laid off, hampered delivery of logistics goods, and others (13).

The number of COVID-19 cases in workers has increased in several industrial and office sectors requiring work in the office. The UTAH Department of Health (UDOH) mentions that the transmission of COVID-19 is endemic in industry and offices. On 5 June 2020, there were reportedly 1 389 to 11 448 cases of COVID-19 outbreaks in industrial and office workplaces. The high risk of transmission in the workplace can be seen from the number of people interacting in one room. The transmission source through droplets can move quickly, especially in closed rooms and circulation that uses air conditioning or air conditioning. Work that travels long distances and must use transportation also results

in transmitting the COVID-19 virus, limitations in working leave also affect the health system and reduce stamina in the body (14).

Knowledge in some people is less seen from education and lower-middle jobs, their perception of the most significant risk of transmission of COVID-19 in people suffering from terminal diseases. Limited information is also very influential in public knowledge about COVID-19. Although the government or media discussed COVID-19, many people have difficulty accessing it, so the information they get is lacking and causes the public to be confused to receive the correct information. Furthermore, knowledge greatly influences attitudes because public knowledge will respond to what they get from the information obtained. After that, the public can also determine what actions are right to reduce the rate of spread of this virus. The attitude of society that arises also affects the knowledge obtained. If the public responds or responds positively, then health protocols will also be applied regularly and adequately. And if the attitude is negative, then the response to information and the application of health protocols is also less such as not wearing a mask, not keeping a distance, and not paying attention to the COVID-19 outbreak (15-19). In this background, researchers are interested in doing research related to identifying knowledge, attitudes, and preventive behaviours in office workers about the prevention of COVID-19. This study aims to find out the knowledge, attitudes, and behaviours of office workers regarding preventing COVID-19.

METHODS

Research is a type of quantitative research using a correlational descriptive research design with a cross-sectional approach. This research was conducted from 27 January to 2 February 2021 at the Campus in Malang City, Indonesia. The population of this study amounted to 84 employees with a sample of 69 staff employees of one University in Malang, Indonesia. This research sampling technique uses a convenience sampling type non-probability sampling technique. Instruments in this study used questionnaires related to knowledge, attitudes, and behaviours to prevent exposure to COVID-19 in office workers regarding the COVID-19 outbreak. The knowledge and attitude questionnaire obtained from the source of the research journal consists of a demographic questionnaire, knowledge questionnaire, and employee attitude regarding the prevention of COVID-19 following health protocol guidelines (20). The preventive behaviour questionnaire consists of demographic data (gender, age, education, marital status, work unit, living in the red zone region for the past two weeks, family or friends infected with COVID-19) (20). It contains about COVID-19 prevention measures for office workers (20). Data collection in this study was conducted by providing online questionnaires to all respondents of employees of the University using google form. This study used univariate and bivariate data analysis with Spearman rank correlation tests. The ethical clearance was obtained from IRB of Medicine Faculty, University of Muhammadiyah Malang (No: E.5.a/022/KEPK-UMM/III/2021)

RESULTS

The results of this study are obtained in the form of a table consisting of the results of univariate analysis and bivariate analysis as follows:

Table 1 illustrates the characteristics of respondents from the total number of employee respondents, showing that the frequency of the most ages is 22-34 years and >45 years by percentage (33.3 %). The frequency of the male sex (55.1 %) is higher than that of women (44.9 %). While the frequency of marital status in employees is mostly married with a percentage (75.4 %). The frequency of recent education data shows that a percentage of employees with the most college education (56.5 %). Respondents' descriptions based on the frequency of direct contact with others on average (44.9 %) always have direct contact with others. Employee frequency data on living in the red zone area over the last two weeks showed that many (52.2 %) did not live in the red zone area during the previous two weeks. The data results can be seen as much as (81.2 %) have not been in direct contact with people infected with COVID-19.

Table 1

Characteristics of Office Employee Respondent Data (n=69)

Category	Sum	Percentage
Age		
<25 years	6	8.7
25-34 years	23	33.3
35-44 years	17	24.6
>45 years	23	33.3
Gender		
Man	38	55.1
Woman	31	44.9
Married Status		
Marry	52	75.4
Unmarried	13	18.8
Divorce	2	2.9
Other	2	2.9
Education		
Junior high school/equivalent	3	4.3
Senior high school/equivalent	27	39.1
College	39	56.5
Frequency of direct contact work with others		
Never	2	2.9
Sometimes	13	18.8
Often	23	33.3
Always	31	44.9
Staying in the red zone area for the last two weeks		
Yes	33	47.8
Not	36	52.2
Direct contact with people infected with COVID-19 in the past two weeks		
Yes	13	18.8
Not	56	81.2

Table 2

Table description of knowledge level and attitude of Office Employees (n=69)

	Frequency (n)	Percentage (%)
Knowledge		
Good	52	75.4
Enough	16	23.2
Less than	1	1.4
Attitude		
Positive	67	97.1
Negative	2	2.9

Table 2 shows that researchers have made regarding knowledge among in-office employees about health protocols at almost 75.4 % in the good category. And respondents who have enough knowledge is 23.2 %. Furthermore, the researchers' observations about attitudes to office employees regarding health protocols were obtained (97.1 %) almost all respondents had a positive attitude category.

Table 3

Description of COVID-19 Prevention Behavior Level at Employees (n=69)

Behavior	Frequency (n)	Percentage (%)
High-Risk Behavior	3	4.3
Moderate Risk Behavior	27	39.1
Low-Risk Behavior	39	56.5
Total	69	100

Table 3 shows that have been made by researchers on COVID-19 prevention behaviour in-office employees were obtained 56.5 % in the category of low-risk behaviour, meaning that respondents have good COVID-19 prevention behaviour. The average score of the respondent's behavioural score was 24.83, with a top score of 30 and a low of 12. The standard deviation score of the respondent's behavioural score was 3.53.

Table 4 reported that the results of the Spearman rank test cross-tabulation of knowledge and attitude of office employees about COVID-19 prevention are 0.032. Furthermore, it can be concluded that there is a relationship between knowledge and attitude. The better the level of knowledge, there will be a positive attitude as well.

Table 5 illustrates the percentage of respondents' answers to 6 questionnaire questions for COVID-19 preventive behaviour. In question no.1 (I wore a mask during the pandemic), the majority of respondents answered "always" wearing a mask with data (75.4 %). In question

Table 4

Table of Cross Tabulation between The Level of Knowledge and Attitude of Office Employees about COVID-19 prevention

Knowledge	Attitude				Total		p-value	r
	Positive		Negative					
	F	%	F	%	F	%		
Good	51	73.9	1	1.4	52	75.4		
Enough	15	21.7	1	1.4	16	23.2	0.032	0.259
Less	1	1.4	0	0.0	1	1.4		
Total	67	97.1	2	2.9	69	100		

Table 5

Recapitulation percentage of Office Employees Questionnaire Answers

Statement	Never		Infrequently		Sometimes		Often		Always	
	F	%	F	%	F	%	F	%	F	%
I wear a mask during a pandemic.	1	1.4	0	0.0	4	5.8	12	17.4	52	75.4
I follow the standard for washing my hands during pandemics (6-step handwashing for 20 seconds using soap and running water)	0	0.0	1	1.4	9	13.0	25	36.2	34	49.3
I can stay at home unless necessary (such as work, medical care, and buying food) during a pandemic.	2	2.9	1	1.4	2	2.9	24	34.8	40	58.0
I do not believe and do not forward unverified false information during a pandemic.	7	10.1	5	7.2	9	13.0	17	24.6	31	44.9
I forward official information and take the initiative to forward or share scientific information during a pandemic.	5	7.2	6	8.7	27	39.1	15	21.7	16	23.2
If I show symptoms of >37.5°, cough, flu, shortness of breath)	6	8.7	3	4.3	7	10.1	16	23.2	37	53.6

no. 2 (I followed the standard for hand washing during a pandemic (handwashing six steps for 20 seconds using soap and running water)), nearly half of the respondents answered "always" with data (49.3 %) and followed by "frequent" answers with data (36.2 %). In question no. 3 (I as much as I can stay home unless necessary (such as work, medical care, and buying food) during a pandemic), half of the respondents answered "always" with data (58.0 %) and followed by "frequent" answers with data (34.8 %). On question no. 4 (I do not believe and do not

forward unverified false information during a pandemic) and question no. 5 (I forward official information and take the initiative to deliver or share scientific information during a pandemic), the majority of respondents answered "always" with data (78.1 %). Half of the respondents answered "occasionally" with data (53.1 %). On question no. 6 (If I show symptoms of COVID-19, I will go for treatment. (fever >37.5°, cough, flu, shortness of breath) half of the respondents answered "always" with data (53.6 %) and followed by "rare" answers with data (23.2 %).

DISCUSSION

Description of the level of knowledge of office employees on the prevention of COVID-19

Based on the results of the data analysis, it was found that almost all respondents had good knowledge. Good individual knowledge can be supported by accepting the information that has been obtained. If a person knows about information, he can determine decisions and make decisions to deal with it (21). This study was also in line with a previous study that a good level of knowledge can show awareness of the severe dangers of COVID-19 in workers (20). Each individual will be different in interpreting knowledge about employee understanding of COVID-19 transmission, signs of symptoms and differences with other diseases, and health protocols that have been implemented. Differences in knowledge levels are also influenced by several other factors: education, work, age, and environmental and socio-cultural factors (22).

This result might be caused by the last education of the most respondents was college. Education is a way to obtain information, provide logical theory and general knowledge, and develop and hone cognitive abilities (23). Another research following this study found that the higher a person's level of education, the higher the learning possessed (21). On the other hand, the study also explained that most people were 25-34 years old and >45 years. The experience and maturity of one's soul can be seen from age; the more age and age, the level of maturity and strength a person is more mature in thinking and working (22).

Description of office employees' attitude towards the prevention of COVID-19

Based on the study results, almost all employees at UMM had a positive attitude towards health protocols. The attitude of respondents is influenced by good knowledge because when a person gets a stimulus and knows about information, he will be able to determine and take decisions to deal with it (22). Therefore, when a person knows information about COVID-19, then he will be able to determine how to do with COVID-19 (24). Factors that influence attitudes in several ways are one's personal experience, the influence of others who are considered important, cultural influences, mass media, educational institutions and religious institutions, and emotional factors of a person. In this case, the influence of others and the mass media is also essential in accepting one's information on a problem (22). This result follows previous research as many as 201 respondents have good knowledge with a percentage (of 98 %) and have a positive attitude as much as (96 %) about the COVID-19 pandemic (25). Furthermore, the same study was conducted on 180 000 workers in China (20). The result was that many workers had good knowledge, as much as 90.7 %, followed by a positive attitude of 97.3 % in preventing COVID-19 and implementing health protocols.

Description of office employees' behavior towards COVID-19 Prevention

In this study, respondents had low-risk behaviours infected with COVID-19. Each respondent has different behaviours, based on previous research explaining that a person's behaviour towards disease is influenced by many factors, including knowledge, perception, emotions, motivation, and environment (21). Supported by research that good behaviour can indicate awareness of the severe dangers of COVID-19 in workers (20). Each individual will be different in interpreting behaviours regarding COVID-19 transmission because behaviour is influenced by several factors, namely, education, work, age, and environmental factors. This study explains the characteristics of respondents related to the most age, namely the ages of 25-34 years and >45 years. The age range of 25-45 is a mature

age considering that someone at that age will have a good fishing pattern and thinking power so that it is realized with the behaviour he has will also improve (26).

The characteristic results of respondents in this study explained that the most education-related to college was 56.5 %. A positive influence of education on a person's behaviour can affect the quality of life (27). A highly educated quality of life is better over time because the level of education can affect a person's actions or behaviour. It dramatically impacts every aspect of his life. The study is also in line with research that the behaviour of highly educated individuals has higher scores, which explains that highly educated workers are better at processing information faster and better able to distinguish between information and correct actions (20). The study demonstrated that the gender of respondents was obtained 55.1 % of men and 44.9 % of women. Gender roles are not only determined by the gender of the person concerned but also by the environment and other factors (26). The environment that influences worker behaviour is the workplace environment, co-workers, and health workers. In this study, it was explained that the marital status of respondents obtained the majority of married with data 75.4 %. This is in line with the previous research who have had a partner in the sense of being married, they do not want to be exposed to COVID-19 and transmit it to their partners, so they take care of themselves and their partners while continuing to apply COVID-19 prevention behaviour in their lives (28).

The relationship between knowledge and attitudes of office employees towards the prevention of COVID-19

The results of the study analysis using the spearman rank correlation test obtained a significance value of 0.032, the value of the significance is less than the value of $\alpha = 0.05$, so it can be concluded that there is a significant correlation or relationship between knowledge variables and attitudes of office employees about COVID-19 prevention. The correlation coefficient is 0.259. The magnitude of the correlation of 0.259 indicates a relationship between the two low variables (29). Both variables show a positive relationship (directly proportional), which means that the better the knowledge of office employees, the more positive the employee's attitude about implementing health protocols. The results are following research that good knowledge will lead to a positive attitude in preventing and implementing the COVID-19 protocol (30).

The study results were conducted on 34,218 people to measure the level of knowledge and attitudes regarding physical distancing, lockdown policies, and the implementation of health protocols (31). The research obtained the results that the public has good knowledge about COVID-19. The public also gets information from the news on television and social media, which raises a positive attitude that COVID-19 can be controlled and resolved. The study also explains that a person's knowledge and attitudes can be judged from an educational background and age (31). Unlike the research in Thailand, studied explained that about 73.4 % of 520 respondents had poor knowledge about the prevention and control of COVID-19. As many as 31.4 % of respondents showed negative attitudes toward preventing and controlling this COVID-19 disease (32). On the contrary, our research study showed that good knowledge amounted to 75.4 % of the 69 respondents with a positive attitude of 97.1 %. This research is in line with previous research explaining that 85 % of public knowledge is higher about COVID-19. Significantly will also have a positive attitude of 90 % in this COVID-19 pandemic (33).

CONCLUSION

The study can provide conclusions in the study entitled identification of knowledge, attitudes, and preventive behaviours in office workers about the prevention of COVID-19 that the level of knowledge in office workers have good knowledge related to COVID-19 who know about the signs of symptoms, how to prevent against COVID-19 and health protocol rules. Furthermore, the majority of the office workers have a positive attitude towards the current condition of COVID-19 and have behaviours that are at low risk for COVID-19 transmission.

This is because respondents understand the use of masks, washing hands, and maintaining distance between other co-workers. Therefore, the correlation between the knowledge and attitude of office workers has a positive relationship. The better the knowledge of office employees about health protocols, there will be positive the attitude of each individual.

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