THE ASSOCIATION BETWEEN COMMUNITY HEALTH CENTER WORKERS AND THEIR PREPAREDNESS TO ANTICIPATE FOR COVID-19 AT WORK
Hubungan Antara Perilaku Dan Kesiapan Petugas Puskesmas Dalam Antisipasi Covid-19 Di Puskesmas Kota Semarang

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ABSTRACT

Background: The Central Java Response COVID-19 website shows, Semarang City has the highest COVID-19 cases in Central Java. The coverage area of Rowosari Community Health Center (CHC) has experienced many COVID-19 cases compared to other areas in Semarang City. Meanwhile, the Srondol CHC has shown a rapid decline in COVID-19 cases. Subsequently, the COVID-19 cases in Krobokan CHC have been recorded as low numbers compared to other CHCs in Semarang City. Purpose: The purpose of this study was to analyze the association between the CHC workers' behavior (knowledge, attitude, practice) and the readiness in anticipation of COVID-19 at work. Methods: This study was a quantitative analytic with the google form instrument in collecting the primary data. Meanwhile, secondary data obtained from CHCs, Central Java provincial government, and Semarang City Government were added to enrich the study. The investigators invited 135 persons from the CHC workers. However, only 97 respondents filled the instrument. Results: The majority of respondents were female with a good knowledge of 57 people (58.8%). Respondents with a good attitude were 57 people (58.8%), good practices were 87 people (89.7%), and informed readiness were 88 people (90.7%). There is a significant relationship between knowledge (p-value: 0.002; α: 0.05), attitude (p-value: 0.012; α: 0.05), and practice (p-value: 0.028; α: 0.05) and the readiness of health center officers in anticipation of COVID-19 at work.
Keywords: Occupational Health and Safety, Health Officer Readiness, Behavior, COVID-19.

ABSTRAK

Latar Belakang: Merujuk data pada portal Jateng Tanggap COVID-19, Kota Semarang adalah kota yang mempunyai kasus COVID-19 tertinggi di Jawa Tengah. Dari hasil pantauan data COVID-19 maka daerah sekitar puskesmas Rowosari pernah menjadi wilayah dengan kasus tertinggi di Kota Semarang. Sedangkan wilayah kerja puskesmas Srondol menunjukkan penurunan kasus COVID-19 secara cepat. Wilayah kerja Puskesmas Krobokan dipilih karena kasus COVID-19 tergolong rendah di banding wilayah kerja Puskesmas lainnya. **Tujuan**: Tujuan penelitian ini untuk mengetahui kesiapan dari petugas Puskesmas dalam antisipasi COVID-19 di wilayah kerja masing masing. **Metode**: Penelitian ini merupakan penelitian kuantitatif analitik. Instrumen yang digunakan dalam penelitian berbentuk *googleform* untuk pengumpulan data primer. Sedangkan data sekunder diperoleh dari Puskesmas, pemerintah provinsi Jawa Tengah dan Pemerintah Kota Semarang. Jumlah populasi pada penelitian adalah 135 orang pegawai Puskesmas, namun yang bersedia menjadi responden penelitian hanya 97 orang. **Hasil**: Dari 97 responden, mayoritas responden adalah perempuan, responden yang mempunyai pengetahuan baik (58,8%), responden dengan sikap baik (58,8%), praktik yang baik (89,7%) dan siap dalam antisipasi COVID-19 sebanyak (90,7%). Ada hubungan secara signifikan antara pengetahuan (*p-value*: 0,002; α: 0,05), sikap (*p-value*: 0,012; α: 0,05), dan praktik (*p-value*: 0,028; α: 0,05) dengan kesiapan petugas Puskesmas dalam antisipasi COVID-19 di Puskesmas Kota Semarang.
Kata kunci: Kesiapan Petugas Kesehatan, Perilaku, COVID-19

INTRODUCTION

At the beginning of 2020, the world was shocked by the outbreak of the corona virus (COVID-19) which infects almost all countries in the world (Buana, 2020). As of January 2020, the World Health Organization (WHO) has declared that the world is in a global emergency with the COVID-19 pandemic. In slowing the rate of virus transmission, prevention for the spread of outbreaks, optimal care for patients and minimizing risks from the COVID-19 pandemic are strategies that must be carried out by the health care system (WHO, 2020). Semarang City is the city with the highest COVID-19 cases in Central Java Province. the incidence of COVID-19 continues to increase from time to time, the highest case occurred on July 7 with 976 cases confirmed positive for COVID-19 (Dinkes Jateng, 2020).

In suppressing the spread of the COVID-19 virus in Indonesia, Public Health Center have an important role in screening by using the method of tracing people suspected of having direct contact with sufferers (Kementerian Kesehatan Republik Indonesia, 2020b). For the Semarang City area, there are 37 main health centers and supported by 33 sub-health centers spread across 16 sub-districts and 177 urban villages. Of these, there are 11 Public Health Center that have inpatient facilities and the others are outpatient clinics.

Occupational safety and health are the main discussions, including at public health service centers (Kemenkes, 2014). Maintain and improve the degree of physical health, mental wellbeing and psychosocial for all workers by anticipating, recognizing, evaluating and controlling the hazards caused by unsafe conditions for workers and unsafe environmental conditions, which is the definition of occupational safety and health, referring to at the ILO (O. Alli, 2008).

In carrying out promotive and preventive efforts to increase capacity and capability in dealing with the COVID-19 pandemic, the Singapore Ministry of Health is pursuing a strategy to reduce mortality and morbidity through SEIPS (The Systems Engineering Initiative for Patient Safety) which is a model to analyze the root causes of problems and explain how the framework work carried out to describe the steps taken to minimize the transmission of COVID-19 to health workers in Singapore Hospitals. In its implementation, the level of knowledge and understanding of COVID-19 and the availability of PPE are important assessments of the readiness of health workers (Gan, Lim and Koh, 2020).

As the front line in carrying out promotive and preventive efforts, health workers at the Public Health Center have a great risk of being infected with COVID-19 because they often have direct contact with patients (Gan, Lim and Koh, 2020). Public Health Centers are included in health service institutions aimed at individuals at the first level, in their implementation Public Health Centers are expected to provide quality services (Prima, 2015). he Public Health Center does not only provide health services to patients but is obliged to ensure the safety of everyone in the Public Health Center environment who is accessing health services. (Kementerian Kesehatan Republik Indonesia, 2014).

Behavior of Public Health Center officers can be assessed through a person's level of knowledge, attitudes and practices to reach health authorities in order to control the accelerated rate of transmission of COVID-19 (Azlan et al., 2020). In L. Green's theory to analyze human behavior, it can be influenced by 2 factors, behavioral factors (behavior causes) and factors outside behavior (non-behavior causes). Furthermore, behavior is formed from three factors, namely predisposing factors, supporting factors and reinforcing factors (Notoadmodjo, 2007). he formation of behavior in Public Health Center officers which includes the level of knowledge, positive attitudes and good practices is expected to reduce the rate of transmission of COVID-19.

So, researchers are interested in conducting research on individual behavior with the readiness of Public Health Center officers in anticipating COVID-19 at the Semarang City Public Health Center.

METHOD

The method used an analytical design with a quantitative approach to determine the relationship between the independent variables: the behavior of Public Health Center officers consisting of knowledge, attitudes, and patient handling practices with the dependent variable being the readiness of Public Health

Center officers in anticipating COVID-19 at the Public Health Center of Semarang City.

The population involved are Public Health Center officers at three Public Health Centers in Semarang City, namely Public Health Center Krobokan (West Semarang), Public Health Center Srondol (Banyumanik) and Public Health Center Rowosari. Public Health Center officers are all staff/employees at the Public Health Center. The determination of the three Public Health Centers is based on representatives of each Public Health Center sub-district in Semarang City, which is considered the highest COVID-19 case in Semarang City. Determination of the sampling technique using convenience sampling and using inclusion criteria, namely 1) Public Health Center officers who are still actively working and 2) health workers who are willing to fill out questionnaires. Of the 135 total population of Public Health Center officers who met the criteria in filling out the questionnaire, 97 respondents.

Data collection was undertaken online due to the COVID-19 pandemic. In the process of recruiting respondents, coordination was undertaken with each representative from the Public Health Center to disseminate questionnaires by using telephone and WhatsApp chat messenger. Moreover, primary data retrieval using a questionnaire using a google form which was distributed to respondents. Extract the data that has been obtained from Google form then export it into Microsoft Excel for coding. Finally, the data were analyzed using the SPSS application using the Chi-Square bivariate test with a significance level of P-value <0.05 (two-tailed). This research has obtained clearance and eligibility from KEPK FKM Undip with number 126/EA/KEPK-FKM/2020.

RESULTS

Table 1. Frequency Distribution of Individual Characteristics and Behavior of Public Health Center Officers at Public Health Center X Semarang City

Characteristics	Frequency	%
Age (Median)	34	
Risky (< 34 year old)	47	48,5
High risk (≥ 34 year old)	50	51,5
Sex		
Male	9	9,3
Female	88	90,7
Educational Background		
Diploma	56	58,7
Bachelor	40	41,2
Postgraduate	1	1
Years of Service		
Short (< 4 years)	37	38,1
Long (≥ 4 years)	60	61,9
Employment status		
Non-Civil Servants	36	37,1
Civil Servants	61	62,9
Readiness of Public Health Center Officers		
Ready	88	90,7
Not ready	9	9,3
Knowledge		
Good	57	58,8
Poor	40	41,2
Attitude		
Good	57	58,8
Poor	40	41,2
Patients Treatment Practice		

Characteristics	Frequency	%
Good	87	89,7
Poor	10	10,3

Table 1 showed that most respondents were women (n=88, 90,7%). Most respondents belonged to a high risky age (n=50, 51,5%). Furthermore, most respondents had Diploma educational background (n=56, 58.7%), Most respondents were Diploma/Bachelor (n=40, 41.2%). Most respondents have long tenure (n= 60, 61.9%). Most respondents were civil servants (n=61, 62.9%). Most respondents' readiness included in the ready category (n=88, 90,7%), knowledge in the good category (n=57, 58,8%), good attitude (n=57, 58,8%) and good practice (n=87, 89.7%).

Table 2. Correlation between Behavioral Characteristics and Readiness of Public Health Center Officers in Anticipating COVID-19.

Characteristics	Readiness				Total		P-Value
	Ready		Not ready				
	f	%	f	%	f	%	
Knowledge							
Good	59	98,3	1	1,7	63	100	0,002
Poor	29	78,4	8	21,6	34	100	
Attitude							
Good	59	96,7	2	3,3	61	100	0,012
Poor	29	80,6	7	19,4	36	100	
Patients Treatment Practice							
Good	63	95,5	3	4,5	66	100	0,028
Poor	31	80,6	6	19,4	31	100	

Table 2 described the correlation between behavioral characteristics and the readiness of Public Health Center officers. Based on the results of the bivariate test, it was found that there was a significant relationship between knowledge and readiness of Public Health Center officers with a p-value of 0.002. The results of the bivariate test explained that there was a correlation between attitude and readiness of Public Health Center officers with a p-value of 0.012. The results of the bivariate test explained that there was a correlation between patient handling practices and the readiness of Public Health Center officers with a p-value of 0.028.

DISCUSSIONS

Behavior is a person's response to a stimulus from outside. Behavior is human activities that can be observed directly and indirectly from outsiders. Stimulus comes from external factors (environmental, social, cultural, economic, and political) and is influenced by internal factors: individual characteristics, education level, and others. In relation to health behavior, L.R Green plans health education through the Precede-Proceed Model framework so that behavioral factors (behavior causes) and factors outside of behavior / environmental factors (non-behavior causes) are the impact of forming a person's behavior (Green, L.W., and Kreuter).

Behavior is formed from three factors, namely 1) predisposing factors, which are factors that influence the formation of behavior from within a person such as individual characteristics, attitudes, and knowledge, 2) enabling factors, which are factors that allow the formation of behavior. someone who comes from outside such as the availability of infrastructure, training, work shifts, etc., 3) Reinforcing factors which are factors that strengthen the formation of behavior in a person are usually based on regulations such as laws and regulations and SOPs (Standard Operating Procedures), etc. (Notoadmodjo, 2007).

The results of the bivariate test explained that there was a significant relationship between knowledge and readiness of public health science officers with a p-value of 0.002. The knowledge level of health workers explained that most of the learning was above the average value. In the question

"Using a hand sanitizer with an alcohol content of 60-70% can prevent contracting the SARS-CoV-2 virus," respondents got the highest percentage of correct answers. Thus, health workers were considered to know and implement health protocols and were responsible for implementing policies set in anticipation of COVID-19 (Prima, 2015). Then on the question "How to suppress the spread of the SARS-CoV-2 virus effectively, namely by doing social distancing / physical distancing" in the questionnaire, respondents showed a high percentage of correct answers. This means that the level of knowledge of the respondents was considered positive.

This study was in line with the exploration conducted by Yuniar in 2013, which stated that there was a significant relationship between knowledge and nurse performance in preventing nosocomial infections at PKU Bantul Hospital, Yogjakarta, with a p-value of 0.000. That respondents with low knowledge had the opportunity not to control INOS 7.115 times (Herpan and Wardani, 2013). Acceptance of behavior change in a person can be assessed through the level of a person's knowledge, attitudes, and practices to achieve health authority. In research conducted by Arina, 2020, it was stated that good understanding and a positive attitude could control the acceleration of the spread of covid-19, which means that anticipation of covid-19 can be done because respondents have a good knowledge base. Most of the participants answered correctly on the knowledge questionnaire and had a positive attitude towards anticipating COVID-19. A person's level of knowledge was influenced by several other factors such as age, place of residence, limited access to information related to COVID-19, and excess information may also cause confusion and difficulty finding correct information (Azlan et al., 2020).

It was found that most of the respondents were in the hazardous age category (>34 years) to be exposed to COVID-19, which could even lead to death. At the same time, it made a person more vulnerable due to reduced ability to access and understand information, make decisions and take preventive actions in anticipating COVID-19.

A recent study at a Psychiatric Hospital in China stated that 89.51% of health workers had good knowledge of COVID-19. This was due to the ease of getting access to training related to COVID-19 provided by the hospital and the dissemination of good information media. The level of knowledge, good preparedness, age level, and the absence of misunderstandings in providing information are included in predisposing factors in risk management to anticipate COVID-19 (Shi et al., 2020). This makes health workers better prepared to prevent COVID-19 in the workplace (Herpan and Wardani, 2013).

Attitude is a complicated thing, which can be interpreted as an evaluative statement, either pleasant or unpleasant, or an assessment of a particular object. Readiness in question was a stimulus (push) in requiring a response. In this case, the object in question was preparedness in anticipation of COVID-19. So this research was in line with Novandhi 2018 that there was a relationship between attitudes and unsafe behavior in health workers at Public Health Center X Semarang City (Novandhi Surbakti et al., 2018).

The study results explained that a good work attitude with readiness in anticipating Covid was 96.7%. So it can be interpreted that health workers who have an excellent work-ready attitude will tend to behave in anticipation of covid-19. The better the perspective of health workers was, the better the readiness towards anticipating COVID-19 at the public health center.

The attitude measurement of health workers at the Semarang Public Health Center was through several indicators, including the habit of washing hands, using PPE, and ready behavior in anticipation of COVID-19. The highest percentage was in the question of handwashing habits (87.6%). This explained that all health workers have a positive attitude regarding handwashing habits, which was one indicator of ready behavior in anticipating COVID-19 for health workers, as for the question with the smallest percentage related to the attitude of being prepared, namely in PPE. There was the question of discomfort in using PPE with a percentage of 36%. This explained that the perspective of being ready

for awareness among health workers has a negative attitude.

Negative attitudes in anticipating COVID-19 were related to the risk of contracting the virus through droplets for both patients and health workers, so PPE was significant to control droplet contamination of the spread of COVID-19. The pattern of transmission of the COVID-19 virus is very relevant to those who, in their work, have to come into direct contact with animals, thereby placing them at risk of zoonotic infection (Su et al., 2019). So the results of this exploration were in line with research conducted by Prima 2015 that there was a significant relationship between attitudes and practice of nurses in controlling nosocomial infections in the Kendal Islamic Hospital Inpatient Room (Prima, 2015).

The study results explained that most of the practices in anticipation of COVID-19 get high scores. This happened because health workers have taken disinfection actions before and after using medical devices, implemented five moments of hand hygiene, implemented COVID-19 preparedness procedures, and used PPE in handling patients. Based on the results of the bivariate test, a p-value of 0.028 was obtained, so it can be concluded that there is a relationship between patient handling practices and readiness in anticipating COVID-19 at the Semarang City Health Center. This research was in line with Ronald (2020) that there is a significant relationship between practice and readiness to anticipate COVID-19. Ronald stated that practice was influenced by one's age and education level factors. Individuals 40 years old have a good practice, and someone with the latest education level D3 has a good practice. Health workers who have used PPE when making direct contact with patients and washing their hands after touching patients, so that the practice of handling patients in 74% of respondents were categorized as good with a mean value of 2.4 (Olum et al., 2020).

Practices regarding COVID-19 prevention measures using PPE in health facilities, based on the Coronavirus Disease Prevention and Control Guidelines by the Ministry of Health, namely wearing masks, gowns or hazmat, goggles, and gloves, as well as implementing COVID-19 preparedness procedures (Kementerian Kesehatan Republik Indonesia, 2020a). Based on the guidelines for handling covid-19, there was a significant relationship between practice and readiness proposed by Saqlain (2020), which was influenced by the latest education from health workers. The higher the education, the better the practice in handling patients. Future awareness, knowledge, and educational campaigns were essential for good practice (Saqlain et al., 2020).

According to research conducted by Charles 2020, the practice of preventing COVID-19 implemented by health workers in Ghana explained that the practice and awareness of health workers in using masks got a p-value of 0.001 for COVID-19 prevention readiness. This was influenced by a good knowledge of health workers and the availability of personal protective equipment (PPE), so it can be concluded that there was a significant relationship between practice and readiness so that the research conducted was in line with Charles 2020's research (Nkansah et al., 2020).

The readiness of health workers was categorized into two, namely, ready and unready. Health workers can be said to be prepared if they show a positive attitude towards anticipating COVID-19. On the readiness variable question, "If PDP and/or ODP cases are found, the public health center will report within 24 hours to the District/City Health Office used the daily report form of COVID-19 case data." Respondents who answered "yes" were as many as 88 people, and to the question of "Restrict the number of people in the patient room according to the minimum number," was 89 respondents answered "yes." So it can be concluded that health workers at the public health center were ready to anticipate COVID-19.

CONCLUSION

Based on the results and discussion, it can be concluded that: 1) the level of knowledge has a significant relationship with the readiness of public health center officers in anticipating COVID-19 with a p-value of 0.002, 2) The attitude variable has a relationship with the readiness of public health center officers in anticipating COVID-19 with a value of p-value 0.012, and 3) The practice

of handling patients has a relationship with the readiness of public health center officers with a p-value of 0.028.

SUGGESTION

Based on the results of data analysis, discussion, and conclusions, the following suggestions are submitted: 1) Provide training to public health center officers regarding the function, use, and proper use of PPE 2) Conduct health promotions related to the prevention and control of COVID-19 in the public health center work environment, 3) Always follow the development of information related to the prevention and control of COVID-19, and 4) Always use PPE correctly while working.

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