



## *Determinant Factors Affecting Perceived Barriers in Implementing the Covid-19 Health Protocol in The Community*

### **Faktor-Faktor Penentu yang Mempengaruhi Perseive Barrier Dalam Pelaksanaan Protokol Kesehatan Covid-19 di Masyarakat**

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#### ARTICLE INFO

#### ABSTRACT

##### Article history

Received 20 May 2022

Revised 27 May 2022

Accepted 31 May 2022

##### Keywords

perceived barriers

health protocols

covid-19

Perceived barriers to the application of health protocols are defined as obstacles that arise in carrying out health protocols. The smaller the obstacles, the more people will implement health protocols. Perceived barriers in carrying out health protocols are influenced by demographic areas, education level, employment status, sources of information, and positive experiences of Covid 19. This study aims to determine the factors that influence the perception of the community's barrier in carrying out health protocols. This study used an analytic observational method with a cross-sectional design. The study was conducted in Semarang, Central Java Province, Indonesia, in November 2021. The research subjects were taken by consecutive sampling as many as 88 people. Perceived barrier questionnaires were prepared, previously through validity and reliability tests. Test the analysis with Mann Whitney and Chi-Square. The majority of people with low perceived barrier are people who live in urban areas (66,7%), have higher education (76,7%), work (93,3%), receive information related to Covid 19 from social media (46,7%), and have no experience of Covid 19 (63,3%). There was a significant relationship between area of residence ( $p=0,026$ ), education ( $p=0,003$ ), employment status ( $p=0,000$ ), experience ( $0,003$ ) on the perceived barriers from health protocols. The perception of a small barrier is shown in urban communities, higher education, work status, easy media access, and experience that do not intersect with Covid 19. There will be easier to receive education and implement health protocols.

##### ABSTRAK

Hambatan yang dirasakan dalam penerapan protokol kesehatan didefinisikan sebagai hambatan yang muncul dalam melaksanakan protokol kesehatan. Semakin kecil hambatannya, semakin banyak masyarakat yang menerapkan protokol kesehatan. Hambatan yang dirasakan dalam melaksanakan protokol kesehatan dipengaruhi oleh wilayah demografi, tingkat pendidikan, status pekerjaan, sumber informasi, dan pengalaman positif Covid 19. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi persepsi hambatan masyarakat dalam melaksanakan protokol kesehatan. Penelitian ini menggunakan metode observasional analitik dengan desain cross sectional. Penelitian dilakukan di

Semarang, Provinsi Jawa Tengah, Indonesia, pada bulan November 2021. Subjek penelitian diambil secara consecutive sampling sebanyak 88 orang. Kuesioner hambatan yang dirasakan disiapkan, sebelumnya melalui uji validitas dan reliabilitas. Uji analisis dengan Mann Whitney dan Chi-Square. Mayoritas masyarakat dengan persepsi hambatan rendah adalah masyarakat yang tinggal di perkotaan (66,7%), berpendidikan tinggi (76,7%), bekerja (93,3%), menerima informasi terkait Covid 19 dari media sosial (46,7%), dan tidak memiliki pengalaman Covid 19 (63,3%). Ada hubungan yang signifikan antara daerah tempat tinggal ( $p=0,026$ ), pendidikan ( $p=0,003$ ), status pekerjaan ( $p=0,000$ ), pengalaman (0,003) terhadap persepsi hambatan protokol kesehatan. Persepsi hambatan kecil ditunjukkan pada masyarakat perkotaan, pendidikan tinggi, status pekerjaan, akses media yang mudah, dan pengalaman yang tidak bersinggungan dengan Covid 19. Akan lebih mudah menerima pendidikan dan menerapkan protokol kesehatan.

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## INTRODUCTION

WHO has designated Covid-19 as a global pandemic, this is because the number of confirmed cases continues to increase every day and continues to spread to several countries.<sup>1</sup> The city of Semarang as the capital city of Central Java Province has confirmed 31,944 cases with 1,730 deaths in March 2021.<sup>2</sup> In order to suppress the spread of Covid-19, the government issued a policy, namely wearing masks, maintaining distance and avoiding crowds, and washing hands with soap.<sup>2,3</sup>

People's behavior in implementing health protocols is influenced by many factors. According to the Health Belief Model theory, a person's health behavior is influenced by perceptions, including perceived barriers. Perceived barriers are beliefs about the obstacles faced in health actions, in this case in carrying out health protocols. When the obstacles faced are getting bigger then the health action will be minimally carried out by an individual, but when the obstacles faced are small or even non-existent, a person will take more health action. So that the smaller the obstacles faced in implementing health protocols, the greater the level of community compliance in implementing health protocols. Barriers that arise in implementing health protocols include difficulty breathing when wearing a mask, hands become dry if you wash your hands too often, forgetting to bring a hand sanitizer, feeling troubled if you have to take a shower every time you come home, feeling that people around you are healthy so you don't need to keep your distance. and feel rude if you don't shake hands.<sup>4,5</sup>

Perceived barrier is influenced by education level, occupation, area of residence, information obtained, and past experience.<sup>4</sup> One of the studies related to public perception and action during the pandemic stated that only 13.7% of rural communities consistently used masks, the majority

of urban people felt that there were no obstacles in implementing health protocols.<sup>6</sup> Even though it was an obstacle, in open-ended questions several respondents answered that this activity was aimed at maintaining personal and environmental health, so it was important for them to comply with all health protocols. The urban community in the study had a low perceived barrier to the use of masks, so the majority still adhered to health protocols, although they also felt disturbed by the new habits implemented.

Not many studies have investigated the factors that affect the perceived barrier in carrying out health protocols. Knowing the factors related to the perceived barrier, it can be used as input in formulating strategies for conveying information to overcome the obstacles faced.

## **METHODS**

This research was conducted in Kedungmundu Village as an urban area and Kalongan Village as a rural area in October 2021. This study used an analytical observational method with a cross-sectional design. The number of samples is 88 and taken by consecutive sampling. The inclusion criteria for this study were urban communities living in Kedungmundu Village, Semarang City, and rural communities living in Kalongan Village, Semarang Regency, aged 15-64 years, able to access google forms, and willing to become research respondents. The exclusion criteria were that the respondents were not cooperative and did not fill out the questionnaire completely.

The analysis test between variables uses the Independent Sample t-test and the Man Withney test if the data is not normally distributed. A chi-square test was also conducted on the variables of education, work, information, and experience. The perceived barrier variable was assessed using a questionnaire that had been tested for validity and reliability in previous studies. This research has gone through the Ethical Clearance review process and obtained an ethical decision from the Health Research Ethics Commission, Faculty of Medicine, Universitas Muhammadiyah Semarang.

## **RESULTS**

The results of the research on perceived barriers in table 1, the majority of respondents who have a low perceived barrier are respondents who live in urban areas (66.7%), the last education is college (76.7%), work (93.3%), get sources information about Covid 19 from social media (46.7%), as well as having no experience of Covid 19 (63.3%).

There was a significant relationship between area of residence ( $p=0.026$ ), education ( $p=0.003$ ), occupation ( $0.000$ ), and positive experience of Covid 19 ( $p=0.003$ ) on perceived barriers in implementing health protocols.

Tabel 1. Factors that affect the perceived barrier in carrying out health protocols

No	Variables	Perceived barrier				n	p value
		Small		Big			
		n	%	n	%		
Living area							
1	a. Urban	30	66,7	14	74,4	44	0,026* <sup>§</sup>
	b. Rural	15	33,3	29	25,6	44	
Education							
2	a. No school	0	0	0	0	0	0,003**
	b. Elementary School	0	0	3	5,2	3	
	c. Primary high school	0	0	3	5,2	3	
	d. Senior high school	7	23,3	31	53,4	38	
	e. College	23	76,7	21	36,2	44	
Occupation							
3	a. Doesn't work	2	6,7	28	48,3	30	0,000**
	b. Work	28	93,3	30	51,7	58	
Resources							
4	a. Social media	14	46,7	36	62,1	50	0,155#
	b. Television	7	23,3	15	25,9	22	
	c. Print media	1	3,3	2	3,4	3	
	d. Etc	8	26,7	5	8,6	13	
Covid-19 positive experience							
5	a. Yes	11	36,7	6	10,3	17	0,003**
	b. No	19	63,3	52	89,7	71	

p significant\*

Mann Whitney test<sup>§</sup>

Chi-Square test<sup>#</sup>

## DISCUSSION

Perceived barriers are obstacles that will arise when implementing the Covid 19 health protocol. Low perceived barriers mean that a person feels little or no inhibition in himself so that he can take action to change behavior. Meanwhile, the perception of a big obstacle is a situation where a person finds more obstacles in carrying out health protocols so that there will be a tendency not to implement the Covid 19 health protocols. The results showed that there was a significant relationship between the area of residence and the perceived barrier in carrying out the Covid 19 health protocol.

This is in accordance with another study in Iran regarding the prevention of Covid-19 using the health belief model which states that perceived barriers and residence have a significant effect on preventing Covid 19 behavior.<sup>7</sup> The perceived barrier felt by respondents is that many people still find it difficult to breathe when they have to wear a mask, this is evidenced by the observations

made by researchers that there are still many people who do not consistently use masks to their chins even though they are in public facilities. This is in accordance with one study related to perception and action during a pandemic, which states that only 13,7% of rural communities consistently use masks.<sup>6,7</sup>

Education is the highest formal level that has been completed by respondents. The level of education will affect the knowledge of the respondents. A person's level of education has a direct correlation with their level of knowledge. A person's perception of obstacles about various things is influenced by knowledge so that it influences decision making. So the more educated a person is, the better the perception they have. In this study, there is a significant value between education and perceived barriers in carrying out the Covid-19 health protocol. So that people with high levels of education will have low barriers that affect them in implementing health protocols. This is in line with other studies that show a relationship between adherence to health protocols and education.<sup>8,9</sup> In addition to education, the occupational factor also has a significant relationship to the perceived barrier in carrying out health protocols. According to previous research, education, work, and knowledge of Covid-19 have all been shown to have a major impact on compliance with Large-Scale Social Restrictions.<sup>4,5,7-9</sup>

Many sources of information can be used to access information correctly, but if the source of information is bad, the output will be bad too. Excellent character development is aided by the acquisition of good knowledge. The results of this study indicate that there is no significant relationship between the source of information and the perceived barrier in carrying out the Covid-19 health protocol. This is in line with research that states that there is no significant relationship between information sources and the implementation of the Covid-19 health protocol in Medan. This is because not all sources of information are used to increase knowledge about Covid-19.<sup>10</sup>

Different people see the same thing as influenced by their own experiences and education. Therefore, one's perspective is influenced by one's experience. Experience in this study was assessed by whether or not a person was exposed to Covid-19. This is in line with a survey conducted by the Central Statistics Agency on community behavior during Emergency Large-Scale Social Restrictions in 2021 which stated that Covid 19 survivors would be more obedient to the Covid-19 health protocol.<sup>8</sup>

## CONCLUSIONS

The perception of a small barrier is shown in urban communities, higher education, work status, easy media access, and experience that do not intersect with Covid 19. There will be easier to receive education and implement health protocols.

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