

Analisis Faktor Faktor Yang Berhubungan dengan Kepatuhan Masyarakat Dalam Penerapan Protokol Kesehatan Pasca Vaksinasi Covid 19

Analysis of Factors Relating to Community Compliance with the Implementation of Health Protocols Post Covid-19 Vaccination

Juita Epelina Sinambela^{1*}, Daniel Ginting², Taruli Rohana Sinaga³

^{1,2,3} Prodi Magister Kesehatan Masyarakat, Universitas Sari Mutiara, Medan, Indonesia

Abstract

The implementation of health protocols in the community has decreased after the decline in Covid-19 cases globally, especially in Indonesia. People assume that they will be immune to the virus after being vaccinated, and the President's discourse that people can already take off their masks outside the room, resulting in decreased public compliance in implementing health protocols. This study aimed to analyze factors related to community compliance in implementing the Covid-19 post-vaccination health protocol at the Matiti Health Center, Humbang Hasundutan Regency in 2022. The cross-sectional method was used in the study design. Data collection was in the form of primary data by giving questionnaires to the public who visited the Maititi Health Center with a total sample of 237 people using accidental sampling. The results of the bivariate analysis show that the variables age, education, knowledge, attitudes and availability of Covid-19 prevention facilities and infrastructure are related to community compliance in implementing health protocols after Covid-19 vaccination. It can be concluded that the dominant variables related to community compliance in implementing the post-vaccination Covid-19 health protocol are education and the availability of Covid-19 prevention facilities and infrastructure.

Keywords: Covid-19, vaccination, health protocols, education

Article history :

Submitted 13 September 2022

Accepted 25 Desember 2022

Published 31 Desember 2022

PUBLISHED BY:

Sarana Ilmu Indonesia (salnesia)

Address:

Jl. Dr. Ratulangi No. 75A, Baju Bodoa, Maros Baru,
Kab. Maros, Provinsi Sulawesi Selatan, Indonesia

Email:

info@salnesia.id, jika@salnesia.id

Phone:

+62 85255155883



Abstrak

Penerapan protokol kesehatan di masyarakat mengalami penurunan setelah penurunan kasus Covid-19 secara global, khususnya di Indonesia. Masyarakat berasumsi bahwa akan kebal terhadap Virus setelah divaksinasi, dan wacana Presiden bahwa masyarakat sudah dapat melepas masker di luar ruangan, sehingga mengakibatkan menurunnya kepatuhan masyarakat dalam menerapkan protokol kesehatan. Penelitian ini bertujuan menganalisis faktor-faktor yang berhubungan dengan kepatuhan masyarakat dalam penerapan protokol kesehatan pasca vaksinasi Covid-19 di Puskesmas Matiti, Kabupaten Humbang Hasundutan Tahun 2022. Metode cross sectional digunakan dalam desain penelitian. Pengumpulan data berupa data primer yaitu dengan memberikan kuesioner kepada masyarakat yang berkunjung ke Puskesmas Matiti dengan jumlah sample sebanyak 237 orang dengan menggunakan accidental sampling. Hasil analisis bivariat menunjukkan bahwa variabel usia, pendidikan, pengetahuan, sikap dan ketersediaan sarana dan prasarana pencegahan Covid-19 berhubungan dengan kepatuhan masyarakat dalam penerapan protokol kesehatan pasca vaksinasi Covid-19. Dapat disimpulkan bahwa variabel dominan terkait kepatuhan masyarakat dalam penerapan protokol kesehatan pasca vaksinasi Covid-19 adalah pendidikan dan ketersediaan sarana dan prasarana pencegahan Covid-19.

Kata kunci: Covid-19, vaksinasi, protokol kesehatan, edukasi

*Correspondence Author:

Juita Epelina Sinambela, email: belasinambela@gmail.com



This is an open access article under the CC-BY license

INTRODUCTION

Covid-19 has spread to all countries in the world. Covid-19 has been declared a world pandemic by WHO (WHO, 2020). The number of confirmed cases of Covid-19 until November 2021 in the world has reached 260,867,011 cases, with a death toll of 5,200,267 cases (WHO, 2021). In Indonesia, the first case of Covid-19 was confirmed in March 2020, and then spread to 34 provinces in Indonesia. As of December 5, 2021, the number of positive confirmed cases of Covid-19 in Indonesia was 4,257,815 cases, with the number of deaths as many as 143,876 cases. The number of confirmed cases of Covid-19 in Humbang Hasundutan Regency until May 30, 2022 was 856 cases with a total of 40 deaths. The most Covid-19 cases were in Doloksanggul District with 375 cases with 18 deaths due to Covid-19 (Bupati Humbang Hasundutan, 2020).

The increasing number of confirmed cases and deaths due to Covid-19 in Humbang Hasundutan Regency resulted in the emergence of fear and concern in the community, especially when the delta variant began to spread in Indonesia. Especially after the stipulation of Humbang Hasundutan Regency at level 3. To anticipate this, the Humbang Hasundutan Regency Government has always tried to suppress the spread of Covid-19. One way is to stipulate Humbang Hasundutan Regent Regulation number 48 of 2020 which applies to individuals, business actors, administrators, organizers or people managing business premises and public facilities. Health Service Facility is a public facility, One of the places of business and public facilities in question is Health Service Facilities (Pusat Data Posko Utama Satgas Covid-19, 2021)

Health service activities, one of which is health center are also required to make efforts to prevent and limit infection transmission . The health center is one of health

service facilities is the front line in breaking the chain of transmission of Covid-19. The results of a preliminary survey conducted by researchers at the Matiti Health Center, they had implemented triage/screening according to the SOP for all visitors, separated ARI and non-ARI services, changed the waiting room by making a separator in the patient's waiting room seat. so that visitors can keep their distance, provide Handwashing with Soap (CTPS) facilities, make plastic partitions in the registration room, and promotional media are available in the form of leaflets about Recognize and Prevent Corona Virus, and stickers on Steps to Wash Hands with Soap (CTPS).

When there was a decline in Covid-19 cases globally, especially in Indonesia, it resulted in a decrease in public compliance with health protocols, especially after the implementation of the COVID-19 vaccination. Based on the description above, the researcher is interested in conducting research on the analysis of factors related to community compliance in the application of health protocols as an effort to prevent Covid-19 in health facilities, especially health center as the spearhead of health services in Indonesia

METHODS

The research was conducted from December 2021 to July 2022 (Handini, 2021). The population in this study were all people who visited the UPTD of the Matiti Health Center, Doloksanggul District, Humbang Hasundutan Regency from August to December 2021 as many as 1,685 people. The size of the sample using accidental sampling technique so that it was found as many as 237 people who were determined based on inclusion and exclusion criteria. The inclusion criteria is people who visit the UPTD Puskesmas Matiti with the age group above 17 (seventeen) years, people who have received a complete Covid-19 vaccination, and people who have good literacy skills. The exclusion criteria is visitor's who have not received a complete Covid-19 vaccination, who could not read and write well, and visitor's whose conditions were not possible to fill out the questionnaire. In this study, in collecting data using a questionnaire. The questionnaire aims to be a tool for researchers in obtaining information related to factors that influence attitudes after carrying out the Covid vaccine. After collecting the data, an analysis of the data was carried out using univariate, bivariate and multivariate analysis. Bivariate analysis using chi-square test and multivariate test using logistic regression test.

RESULTS AND DISCUSSIONS

Matiti Health Center is one of the health centers in Dolongsanggul District, Humbang Hasundutan Regency. Located on Jl. Raya Pakkat, Matiti Village, Doloksanggul District, Humban Hasundutan Regency. The working area of Matiti Health Center is 20,929.53 Ha. The working area of the Matiti Health Center consists of 18 villages, 1 kelurahan with 64 hamlets. The total population in the Matiti Health Center area is 18,047 men and 18,033 women with a total of 8,459 families. The implementation of the health protocol at the Matiti Health Center has implemented technical guidelines for government regulations in preventing post-vaccination Covid 19 in an effort to prevent the transmission of the Covid virus.

The Matiti Health Center has also implemented Triage/screening according to the Triage SOP for all visitors who come by separating ARI and non-ARI services, changing the waiting room by making a separator mark on the patient waiting room seat

so that visitors can keep their distance, providing handwashing facilities with soap (CTPS), making plastic partitions in the registration room, and promotional media available in the form of leaflets about Recognize and Prevent Corona Virus, and stickers on Steps to Wash Hands with Soap (CTPS). The decline in Covid-19 cases as well as the discourse from the President of the Republic of Indonesia which allows people not to use masks when outdoors, has resulted in a decrease in public compliance in implementing health protocols.

Characteristics of subjects

Table 1. Distribution of subjects' age, gender, education and works in implementing health protocols at Matiti Health Center in 2022

Variables	N	%
Age		
< 20 years	15	6,3
20 – 29 years	57	24,1
30 – 39 years	81	34,2
40 – 49 years	61	25,7
50 – 59 years	19	8,0
60 – 69 years	4	1,7
≥ 70 years	0	0
TOTAL	237	100
Gender		
Man	106	44,5
Woman	131	55,5
TOTAL	237	100
Education		
Primary school	0	0
Middle School/Equivalent	23	9,7
High School/Equivalent	146	61,6
College	68	28,7
Total	237	100
Work		
Doesn't work	132	55,7
Work	105	44,3
Total	237	100

Source: Primary data, 2022

Based on the table above, most of the subjects aged 30-39 years were 81 people (34,2%), female 131 people (55,5%), high school /equivalent as many as 146 people (61,6%) and not working as many as 132 people (55,7%).

Bivariate analysis

The results of the analysis based on Table 2 below, it explains that, there is a relationship between age and compliance in implementing health protocols. This is based on the results of the calculation of the Pearson Chi Square test with a value of $p = 0.011$. The conclusion is that the older the respondent is, the more obedient he is in implementing health protocols. Research conducted by (Wahyuni *et al.*, (n.d.)) differs from the results of this study which states that there is no relationship between age and adherence to health protocols. Likewise, research by Wijaya (2021) is different from research at the Matiti Health Center.

The results of the analysis of the relationship between sex and compliance in the application of health protocols at the Matiti Health Center, Doloksanggul District, where the results of the Continuity Correction Chi Square statistical test obtained a p

value=0.185, which means that there is no relationship between gender and compliance with health protocols at the Matiti Health Center. No relationship was found between gender and compliance with health protocols in this study, possibly due to the relatively balanced number of male and female subjects having poor compliance.

Table 2. Relationship between age, sex, education, employment status, knowledge, attitude, availability of Covid-19 prevention facilities, and compliance in the implementation of health protocols at Matiti Health Center in 2022

Variabel	Compliance						P Value	OR	95%CI
	Not Good		Good		Total				
	n	%	n	%	n	%			
Age									
< 20 years	14	5,9	1	0,4	15	6,3	0,011*		
20 – 29 years	26	11,0	31	12,7	57	24,1			
30 – 39 years	38	16,0	43	18,6	81	34,2			
40 – 49 years	25	10,5	36	15,2	61	25,7			
50 – 59 years	9	3,8	10	4,2	19	8,0			
60 – 69 years	3	1,3	1	0,4	4	1,7			
≥ 70 years	0	0	0	0	0	0			
Sex									
Man	57	24,0	49	20,7	106	44,7	0,185	1,464	0,875-2,449
Woman	58	24,5	73	30,8	131	55,3			
Education									
Primary School		0	0	0	0	0	0,000*		
Middle School	16	6,8	7	3	23	9,8			
High School	98	41,3	48	20,2	146	61,5			
Collage	1	0,4	67	28,3	68	28,7			
Work									
Doesn't work	60	25,3	72	30,4	132	55,7	0,353	0,758	0,453-1,266
Work	55	23,2	50	21,1	105	44,3			
Knowledge									
Not Good	64	27,0	47	20,1	111	46,8	0,012*	2,003	1,193-3,361
Good	51	21,5	75	31,7	126	53,2			
Attitude									
Not Good	54	22,8	36	15,1	90	37,9	0,008*	2,115	1,239-3,608
Good	61	25,8	86	36,3	147	62,1			
Facilities and infrastructure									
Not Good	63	26,5	47	19,9	110	46,4	0,017*	1,933	1,152-3,244
Good	52	22,0	75	31,6	127	53,6			

Note: Analysis using chi-square test, significant if p-value <0,05

Based on the researcher's observations while conducting research at the Matiti Health Center, the results of data analysis which stated that there was no relationship between sex and adherence after Covid-19 vaccination were correct, because all visitors, both male and female, had the same opportunity to apply health protocols during their visit to the hospital. Public health center. This study is almost the same as the study conducted by (Khairunnisa Z and Magfirah, 2021) which stated that there was no relationship between gender and health protocol compliance (p value 0,427). Research conducted by (Bates *et al.*, 2020) also found that there was no relationship between gender and health protocol compliance (p value = 0.4). Research conducted by (Niruri *et al.*, 2021) did not find a relationship between gender and health protocol compliance (p value = 0,09).

Based on the results of statistical tests with Pearson Chi square, a value of $p = 0,000$ was obtained, it means that there is a relationship between education and the level of adherence to the implementation of health protocols after Covid-19 certification. This is based on an analysis of 67 highly educated subjects who have high adherence to health protocols. The results of the same research conducted by (Al-Hanawi *et al.*, 2020) found a relationship between education and Covid-19 prevention practices (p value = 0,028) and research conducted (Zhong *et al.*, 2020) found a relationship between education with COVID-19 prevention behavior (p value = 0,000).

To find out the relationship between employment status and adherence to the implementation of post-Covid Vaccine health protocols at the Matiti Health Center is to use the Continuity Correction Test. Based on the test results, the value of $p = 0,353$ was obtained. The test results concluded that there was no relationship between work status and adherence to post-vaccine health protocols. This research is in accordance with research conducted by (Tuppal *et al.*, 2021) where no work relationship was found with the practice of preventing the transmission of Covid-19 (p value 0,105). Research conducted by (Khairunnisa Z and Magfirah, 2021) states that there is no relationship between work and Covid-19 prevention behavior (p value 0,230).

The results of the Continuity Correction statistical test on the Chi Square test obtained a p value = 0,012, which means that there is a relationship between knowledge and adherence in implementing health protocols after the Covid-19 program. The OR value is 2,003, which means that subjects with less knowledge have a 2 times higher chance of having poor adherence in implementing the post-vaccination Covid-19 health protocol with a confidence interval of 1,193 to 3,361. The table also shows the results of the analysis of the relationship between attitude and compliance, where the results of the correction continuity statistical test on the chi square test obtained $p = 0,008$, which means that there is a relationship between attitude and adherence to the application of the post-vaccination Covid-19 health protocol at the Matiti Health Center, Doloksanggul District. Where the value of OR = 2,115, this means that subjects who have a bad attitude are 2 times more likely to disobey in implementing the post-vaccination Covid-19 health protocol with a confidence interval of 1,239 to 3,608. The positive attitude of the community in carrying out Covid-19 prevention behavior can be caused by the government's role in handling Covid-19. The government's unprecedented action and rapid response took strict control and prevention measures against COVID-19, to protect citizens and ensure their welfare (Zhong *et al.*, 2020).

In the table, the results of the statistical test of continuity correction on the Chi Square test obtained a value of $p = 0,017$, which means that there is a relationship between infrastructure and health protocol compliance at the Matiti Health Center, Doloksanggul District. Where the value of OR = 1,933, it can be interpreted that subjects' responses to poor facilities and infrastructure have a 2 times higher chance of resulting in poor compliance in the application of health protocols after Covid-19 vaccination with a confidence interval between 1,152 to 3,244.

From the results of the study, it was found that 53.6% of subjects had a good response to the availability of Covid-19 prevention facilities and infrastructure at the health center, and 46.4% of subjects had a poor response. Judging from the frequency distribution of subjects' attitude answers, in the 4th question, as many as 30 subjects did not agree that when in the waiting room, subjects always sat in waiting chairs that were not marked with an "X" so they could keep their distance from other visitors. This means that the respondent does not keep a distance from other visitors when they are at the health center. In the 10th question, as many as 17 subjects thought that the

information media (posters, leaflets, brochures and appeals) about health protocols at the health center did not remind subjects to adhere to health protocols. The researcher's assumption is that subjects do not read information media about health protocols at the health center.

According to the researcher's assumption, this is because good infrastructure encourages someone to be more obedient to health protocols. In this study, it can be seen that 31.65% of subjects with good compliance are due to good infrastructure, while only 19.83% of subjects who have good compliance think that Covid-19 prevention infrastructure is not good. The OR value in this study is 1,933, which means that the availability of facilities and infrastructure for preventing Covid-19 is less than twice as likely to result in the respondent's lack of compliance in implementing health protocols after Covid-19 vaccination.

This study is in accordance with research conducted by (McKay *et al.*, 2020) which found a relationship between the availability of infrastructure and the prevention of Covid-19 in the city of Payakumbuh, West Sumatra (p value = 0,001) with OR = 6.22, which means that subjects who not having infrastructure has a 6,22 times chance of not complying with health protocols compared to subjects who have infrastructure. (Saefi *et al.*, 2020) stated that the availability of infrastructure will cause someone to always use it to prevent contracting Covid-19. Then, the candidate variables were selected for multivariate analysis and multivariate modeling. Variables that continued to multivariate were age, gender, education, knowledge, attitudes and infrastructure having a p value of <0,05. After the logistic regression analysis is carried out in stages, the results of the final stage of logistic regression analysis are obtained as follows:

Table 3. Final stage logistics regression analysis results

Variables	B	P	OR	95% CI
Education	2,625	0,000	13,800	6,391 – 29,800
Facilities and infrastructure	0,896	0,005	2,451	1,317 – 4,561

Note: Analysis using chi-square test, significant if p-value <0,05

Information : B = Constant, OR = odds ratio, CI = confidence level;

In the final modeling (Table 3), the education and infrastructure variables have a p value <0,05. Then the logistic regression has been completed. From the results of multivariate analysis, the factors that are dominantly related to compliance are education and infrastructure. The results of the education analysis got an OR = 13,8, which means that subjects with low education will have a 13,8 times chance of not complying with the health protocol at the Matiti Health Center. The results of the analysis of infrastructure facilities have an OR value of 2,451, which means that subjects with poor availability of Covid-19 prevention infrastructure have a 2,451 chance of not complying with the health protocol at the Matiti Health Center.

CONCLUSIONS

The percentage of community compliance who visited the Matiti Health Center in implementing the health protocol after the Covid-19 vaccination in 2022 was 51.5%. There is a relationship between age, education, knowledge, attitudes and infrastructure with the compliance of the people who visit the Matiti Health Center in implementing the health protocol after the Covid-19 vaccination. However, there is no relationship for the variables of gender and employment status. The dominant factors related to respondent compliance in implementing health protocols after Covid-19 vaccination at

the Matiti Health Center, Doloksanggul District, were education and infrastructure. For this reason, the Matiti Public Health Center as a health service facility is expected to improve the quality and quantity of infrastructure that can protect health workers and the public in health care facilities from exposure to the Covid-19 virus. Health workers at the Matiti Health Center are expected to be able to actively educate about health protocols because Covid-19 is not over yet. For the Matiti Health Center to continue to apply health protocols when carrying out health services such as activities for toddlers posyandu, elderly posyandu, posbindu and other health service activities outside the health center building.

ACKNOWLEDGMENTS

We thank the informants at the Matiti Health Center for their assistance in this research

CONFLICT OF INTEREST

We have no conflict interest

REFERENCES

- Al-Hanawi MK, Angawi K, Alshareef N, Qattan AMN, Helmy HZ, Abudawood Y, Alqurashi M, Kattan WM, Kadasah NA, Chirwa GC, Alsharqi O. 2020. Knowledge, Attitude and Practice Toward COVID-19 Among the Public in the Kingdom of Saudi Arabia: A Cross-Sectional Study. *Frontiers in Public Health*. Frontiers Media S.A., 8. <https://doi.org/10.3389/fpubh.2020.00217>.
- Bates BR, Moncayo AL, Costales JA, Herrera-Cespedes CA, Grijalva MJ. 2020. Knowledge, Attitudes, and Practices Towards COVID-19 Among Ecuadorians During the Outbreak: An Online Cross-Sectional Survey. *Journal of Community Health*. Springer, 45(6): 1158–1167. <https://doi.org/10.1007/s10900-020-00916-7>.
- Bupati Humbang Hasundutan. 2020. Peraturan Bupati Humbang Hasundutan Nomor 48 Tahun 2020 Tentang Penerapan Disiplin dan Penegakan Hukum Protokol Kesehatan Sebagai Upaya Pencegahan dan Pengendalian Corona Virus Disease 2019 di Kabupaten Humbang Hasundutan. Doloksanggul.
- Handini MC. 2021. Metodologi Penelitian Untuk Pemula. Universitas Sari Mutiara Indonesia: Jakarta.
- Khairunnisa Z, Magfirah S. 2021. Hubungan Karakteristik dan Tingkat Pengetahuan Dengan Perilaku Pencegahan Covid-19 pada Masyarakat Desa Paya Bujok Blang Pase Kota Langsa. *Jurnal Averrous*.
- McKay RC, Wuerstl KR, Casemore S, Clarke TY, McBride CB, Gainforth HL. 2020. Guidance for behavioural interventions aiming to support family support providers of people with spinal cord injury: A scoping review. *Social Science and Medicine*. Elsevier Ltd.
- Niruri R, Farida Y, Prihapsara F, Yugatama A, Ma'rufah S. 2021. Perilaku Masyarakat dalam Pelaksanaan Protokol Kesehatan sebagai Upaya Pencegahan Covid-19 di Punggawan, Banjarsari Surakarta Community Behavior on Implementing Health Protocols as Covid-19 Prevention in Punggawan, Banjarsari Surakarta. *Jurnal Farmasi Indonesia*.
- Pusat Data Posko Utama Satgas Covid-19. 2021. Data Pemantauan COVID-19 Kabupaten Humbang Hasundutan, Senin 29 Nopember 2021 s/d Pukul 16.00

- WIB. Humbang Hasundutan.
- Saefi M, Fauzi A, Kristiana E, Adi WC, Muchson M, Setiawan ME, Islami NN, Ningrum DEAF, Ikhsan MA, Ramadhani M. 2020. Survey data of COVID-19-related knowledge, attitude, and practices among Indonesian undergraduate students. *Data in Brief*. Elsevier Inc., 31. <https://doi.org/10.1016/j.dib.2020.105855>.
- Tuppal CP, Ninobla MMG, Ruiz MGD, Loresco RD, Tuppal SMP, Panes II, Oducado RMF, Prudencio DAM, Vega PD, Eribal MJE, Real DVP, Roa MNT. 2021. Knowledge, attitude, and practice toward Covid-19 among healthy population in the Philippines. *Nurse Media Journal of Nursing*. Diponegoro University-Department of Nursing, Faculty of Medicine, 61–70.
- Wahyuni S, Teuku ;, Bahri S, Riski Amalia ;, Studi MP, Keperawatan I, Universitas K, Kuala S, Aceh B, Keperawatan BK, Bedah M. (n.d.). Faktor-Faktor Yang Mempengaruhi Penerimaan Vaksinasi Covid-19 di Banda Aceh Influencing Factors for Covid-19 Vaccination Acceptance in Banda Aceh. *Idea Nursing Journal*, XII(3): 2021.
- WHO [World Health Organization]. 2020. Transmisi SARS-CoV-2: implikasi terhadap kewaspadaan pencegahan infeksi.
- WHO [World Health Organization]. 2021. WHO Coronavirus (COVID-19). WHO Coronavirus (COVID-19) Dashboard With Vaccination Data.
- Wijaya RE. 2021. Analysis of Factors Associated with Compliance with the Implementation of Health Protocols at the Ditpolairud Polda Sumatera Selatan. *Redno Eka Wijaya Jurnal Kesehatan Saemakers PERDANA*, 4(2): 2021. <https://doi.org/10.32524/jksp.v4i2.289>.
- Zhong BL, Luo W, Li HM, Zhang QQ, Liu XG, Li WT, Li Y. 2020. Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: A quick online cross-sectional survey. *International Journal of Biological Sciences*. Ivyspring International Publisher, 16(10): 1745–1752. <https://doi.org/10.7150/ijbs.45221>.