

# Determinants of COVID-19 Protocol Compliance Behaviour in Adolescents

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**Keywords:** COVID-19, Health Protocol, Adolescents.

**Abstract:** Currently, the COVID-19 pandemic is a threat to everyone, including teenagers. The transmission of COVID-19 in adolescents will have an impact on adolescent productivity, overall health, and social impacts such as stigma and discrimination in infected adolescents. The data on adolescents infected with COVID-19 is estimated at 10% of the overall COVID-19 patients, but the impact of this COVID-19 on adolescents will reduce productivity and trauma. The purpose of this study was to determine the determinants of health protocol compliance behaviour in preventing COVID-19 in adolescent students of SMA Muhammadiyah 13 Jakarta. This research is quantitative research with a cross-sectional design. The sample is some students of SMA Muhammadiyah 13 Jakarta as many as 127 students. The Distribution of the questionnaire was carried out on June-July 2022. The results showed that there was a significant relationship between health protocol compliance behaviour with gender, knowledge, attitude, family support, teacher support, friend support, information, media, counselling. The attitude variable is the dominant variable that influences protocol compliance behaviour in adolescents.

## 1 INTRODUCTION

The world at the beginning of 2020 experienced a COVID-19 pandemic. The global situation as of August 8, 2022 shows the number of confirmed cases 581,686,197, deaths 6,410,961 with 232 countries infected (Kemenkes RI, 2022). COVID-19 cases in Indonesia as of August 31 showed 6,354,245 cases with the highest number of cases being in the province of DKI Jakarta 1,392,192 (Satuan Tugas Penanganan COVID-19, 2022). One of the ways to control and prevent COVID-19 is to break the chain of the spread of COVID-19. Breaking the chain of transmission of COVID-19 can be done by implementing health protocols with discipline such as washing hands with running water using soap or hand sanitizer and not touching the face area before washing hands, wearing masks, and keeping a distance in every activity (Kemenkes RI, 2020).

Currently the COVID-19 pandemic is a threat to everyone, including teenagers. The transmission of COVID 19 in adolescents will have an impact on adolescent productivity, overall health and social impacts such as stigma and discrimination in adolescents who are infected. The impact of COVID 19 for teenagers will reduce productivity and trauma.

There are many factors that cause adolescents to contract COVID-19. Based on the research results of Afrianti & Rahmiati (2021) & Fadilah, Pariyana, Aprilia, & Syakurah (2020), found that the determinants of the COVID-19 health protocol are age, gender, education, knowledge, attitudes, and motivation. Based on research by Hidayati, Musniati, Hidayat, & Nurmansyah (2022) it shows that 61.2% of respondents have good COVID-19 prevention behaviour. The results also showed that there was a significant relationship between preventive behaviour and counselling, health motivation, advertising, perceived benefits, media access and perceived barriers.

The results of the BPS 2020 survey stated that respondents with an age range of 17-30 years in complying with health protocols were lower than those in the above age range (BPS, 2020). The purpose of this study was to determine the determinants of health protocol compliance behaviour in preventing COVID-19 in adolescent students of SMA Muhammadiyah 13 Jakarta.

## 2 METHOD

This study is a quantitative analytic study with a cross-sectional design. The research was conducted at SMA Muhammadiyah 13 Jakarta. The sample of this research was 127 students of SMA Muhammadiyah 13 Jakarta. Stratified random sampling technique is used in this study.

Data collection was carried out in June-July 2021. The study used a questionnaire instrument that was distributed online via Google Form. The instrument is equipped with Approval After Explanation and passes the ethical test with no. 03/21.06/01057 from the UHAMKA health research ethics commission. The questionnaire link was distributed to all homeroom contacts of each class (grades 1, 2 and 3). Next, the homeroom teacher distributed questionnaire links to social media per class. Data processing and analysis was carried out with the SPSS application. The analysis carried out is univariate, bivariate and multivariate analysis.

The variables in this study consisted of the dependent and independent variables. The dependent variable is the behaviour of the health protocol. The independent variables are gender, knowledge, attitudes, information exposure, counselling, media access, family support, teacher support, and friend support.

## 3 RESULT

Table 1 shows that more respondents have COVID-19 protocol behaviors that are compliant (52.8%), female gender (59.8%), less knowledge (78.0%), less attitude (71.7%), information exposure is not good (51.2%), counseling is not good (60.6), and media access is not good (81.1%), family support is less supportive (72.4%), teacher support is not good (52.0%), friend support is not good (70.1%).

Table 2 shows that there is a significant relationship between the behavior of the COVID-19 protocol with gender (P-value 0.021), knowledge (P-value 0.033), attitude (P-value 0.000), information exposure (P-value 0.000), counseling (P-value 0.000), media access (P-value 0.009), family support (P-value 0.000), teacher support (P-value 0.000), peer support (P-value 0.000). Table 3 shows that from the multivariate analysis, the most dominant variable associated with the behavior of the student's COVID-19 protocol was attitude with an OR of 4.277.

Table 1: Subject Distribution.

Variable	n	Percentage (%)
COVID-19 Protocol Behaviour		
Obey	67	52.8
Not obey	60	47.2
Total	127	100
Gender		
male	76	59.8
female	51	40.2
Total	127	100
Knowledge		
not good	99	78.0
good	28	22.0
Total	127	100
Attitude		
not good	91	71.7
good	36	28.3
Total	127	100
Information		
not good	65	51.2
good	62	48.8
Total	127	100
Counseling		
not good	77	60.6
good	50	39.4
Total	127	100
Media		
not good	103	81.1
good	24	18.9
Total	127	100
Family support		
not good	92	72.4
good	35	27.6
Total	127	100
Teacher support		
not good	61	48.0
good	66	52.0
Total	127	100
Friend support		
not good	89	70.1
good	38	29.9
Total	127	100

## 4 DISCUSSION

The results of the research carried out are in line with the research of Wiranti, Sariatmi, & Kusumastuti (2020) which shows a relationship between the attitude variable towards the PSBB policy with  $p = 0.000$  ( $p < 0.05$ ), where compliant respondents are superior to respondents with a positive attitude. There is a relationship between gender and adolescent COVID-19 protocol behaviour. Other Research by Zhong in 2020, there is a significant relationship between gender and COVID-19 prevention measures Zhong et al. (2020). Knowledge also has a significant.

Table 2: Relationship between Covid-19 Protocol.

Variable	COVID-19 Protocol behaviour				Total		P-value	PR 95% CI
	Obey		Not obey					
	n	%	n	%	n	%		
Gender								
male	33	64.7	18	35.3	51	100	0.021	2.265 (1.090-4.704)
female	34	44.7	42	55.3	76	100		
Knowledge								
not good	57	57.6	42	42.4	99	100	0.033	2.443 (1.024-5.829)
good	10	35.7	18	64.3	28	100		
Attitude								
not good	58	63.7	33	36.3	91	100	0.000	5.273 (2.216-12.548)
good	9	25.0	27	75.0	36	100		
Information								
not good	45	69.2	20	30.8	65	100	0.000	4.091 (1.951-8.577)
good	22	35.5	40	64.5	62	100		
Counselling								
not good	51	66.2	26	33.8	77	100	0.000	4.168 (1.951-8.904)
good	16	32.0	34	68.0	50	100		
Media								
not good	60	58.3	43	41.7	103	100	0.009	3.389 (1.293-8.880)
good	7	29.2	17	70.8	24	100		
Family support								
not good	58	63.0	34	37.0	92	100	0.000	4.928 (2.068-11.742)
good	9	25.7	26	74.3	35	100		
Teacher support								
not good	46	75.4	15	24.6	61	100	0.000	6.571 (3.013-14.331)
good	21	31.8	45	68.2	66	100		
Friend support								
not good	59	66.3	30	33.7	89	100	0.000	7.375 (3.013-18.053)
good	8	21.1	30	78.9	38	100		

relationship with behaviour of COVID-19 protocols ( $p = 0.015 < 0.05$ ), where the majority of people with high knowledge have good compliance (Afrianti & Rahmiati, 2021).

Hidayati et al. (2022) also show that there is a relationship between the media and prevention behaviour. Such as getting information from television ( $p = 0.027$ ), getting information from seminars or counselling ( $p = 0.001$ ), and getting information from social media ( $p = 0.000$ ). The media is very accessible to teenagers, so the media plays a role in conveying information to teenagers, including information on health protocols.

Family support, teacher support, and support in this study showed a significant relationship with health protocol behaviour in adolescents. Based on Lawrence Green's precede-proceed theory which

states that support is one of the reinforcing factors that support the occurrence of certain behaviours (Green & Kreuter, 2005; Saifah, Sahar, & Widyatuti, 2019).

Support from family, teachers, friends can motivate adolescents to carry out health behaviours such as obeying health protocols. This is also supported by the research results of Hidayati et al. (2022) which shows that health motivation is very dominant in influencing COVID-19 prevention behaviour.

Table 3: Multivariate Result.

Variable	P-value	OR
Attitude	0.004	4.277
Teacher support	0.015	3.060
Friend Support	0.013	3.722
Information	0.048	2.409
Constant	0.000	0.001

## 5 CONCLUSIONS

Determinants of health protocols in adolescents are gender, knowledge, attitude, family support, teacher support, friend support, information, media, and counselling. The attitude variable is the dominant variable that influences protocol compliance behaviour in adolescents.

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