

# Difference of Obedience in following Health Protocols based on COVID-19 Conspiracy Belief Level among Adolescents

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**Keywords:** Obedience, Health Protocols, Conspiracy Belief, COVID-19, Adolescent.

**Abstract:** In order to prevent COVID-19 infectious, all kind of ages including adolescents have to follow the rules from government about health protocols. Obedience in following health protocols is the important things in COVID-19 infection control. But many kind of conspiracies related to COVID-19 comes into the society. Adolescent is the group that has vulnerability to believe in conspiracies. This research aimed to see the differences about obedience in following the rule of health protocols based on level belief in COVID-19 conspiracies. The method of this study is quantitative comparative. Subject were the high school adolescents that domiciled in Kuranji sub-district of Padang amount 190 which divided in 3 groups (N=190) taken by purposive sampling. Instruments are COVID-19 conspiracy belief scale and obedience in following health protocols scale. Data analyzes of Kruskal-Wallis test has found sig. (p) 0,000 ( $p < 0,05$ ). The result has found there are significant differences about obedience in following the rule of health protocols based on level belief in COVID-19 conspiracies. Overall, sample was classified to obedience in medium level. Educational and Health Institution should educate about the serious impact caused by COVID-19 and also inform the COVID-19 hoax so that adolescents become more obey in following health protocols.

## 1 INTRODUCTION

The worlds has suffering for COVID-19 outbreak almost for two years. Coronavirus Disease-2019 (COVID-19) was a disease caused by novel coronavirus SARS-CoV-2, the first case was found in Wuhan, China on Desember 2019 ago (WHO, 2020). Total case of COVID-19 in West Sumatra has reached 89.342 cases (Website Corona Sumbar, October 1, 2021). The biggest infectious COVID-19 region in West Sumatra located in Padang with total case has reached 42.070 cases. One of the biggest infectious COVID-19 region in Padang located in Kuranji Sub-District with total case has reached 7.143 cases (Dinas Kesehatan Kota Padang, October 1, 2021). COVID-19 easily infect the human, so that the spread of virus has increased quickly.

In order to prevent the spread of COVID-19 infectious that continued, the government and institution has implemented health protocols like wearing a mask, increasing sanitation, and sosial distancing (Romer & Jamieson, 2020; Sanche, Lin, Xu, Romero-Severson, Hengartner, & Ke, 2020; Biddlestone, Green, & Douglas, 2020; Bavel et. al, 2020). However, health protocols recommendation

which implemented by government and institution like World Health Organization (WHO) seems not being effective in affecting societies behavior to following health protocols (Adiweni, Satyajati, & Hapsari, 2020). Health protocols which did not followed by societies was affected by government first actions in controlling the outbreak. The government underestimated the case of COVID-19 and did not assertive in taking actions to prevent the spread of COVID-19 ("Ragam Alasan Warga", 2020). Conversely, societies that believe to government's credibility are likely to follow the rules that implemented by government (Stapleton, 2020).

Obedience is the psychological mechanism that links the individuals behavior to political purpose which binds humans to system of authority (Milgram, 1974). The government as the authority, control the individuals punishment if did not follow the health protocols. In the implementation of health protocols, societies divided in two sides, societies that obey to health protocols and societies that disobey to health protocols (Buana, 2020; Stapleton, 2020). The societies that disobey to health protocols could be affected by various factors like the rules that specified are not a habitual, optimistic biased, distrust to the

rule giver, or conspiracy belief (Park, Ju, Ohs, & Hinsley, 2020; Stapleton, 2020; Romer & Jamieson, 2020).

Across to the higher cases of COVID-19 in Indonesia, there were various COVID-19 conspiracies theory which come into societies (Alper, Bayrak, & Yilmaz, 2020; Bertin, Nera, & Delouvée, 2020). COVID-19 conspiracy beliefs have a negative association with health protocols action with the strongest negative effects being associated with some beliefs that the corona virus actually did not exist, lethality has been exaggerated, and the symptoms may caused by a non-viral of corona (Allington et al., 2020). And also, conspiracy belief arise because of rejection to authority figure (van Prooijen & van Lange, 2014). So that, individual's belief to COVID-19 conspiracies could make some trouble, particularly in behavior that relate to obedience in health protocols. According to the survey that has conducted by one of institution, 39,9% societies in West Sumatra assumed that COVID-19 as an global conspiracy which impacted on abandonment to government recommendation about health protocols ("Survei: 39 Persen Warga", 2020).

Conspiracies are likely to be believed by younger people than older people (Allington et al., 2020). Belief in conspiracy theories are likely higher to individuals that lower education level (Georgiou, Delfabbro, & Balzan, 2020). The survey about conspiracies theory has conducted to 57 high school adolescents. Survey has found that 94,74 % adolescent knew about conspiracy and 70,17 % believed to one or more conspiracy that exist. And also, the total infection of COVID-19 tend to be higher particularly in adolescents aged 13 until 17 years old (National Institute for Public Health and the Environment, 2020). So that, the study will conduct to see difference of obedience in follow health protocols based on COVID-19 conspiracy belief level among adolescents in Kuranji sub-district, Padang.

## 2 METHOD

The study use quantitative method and causal-comparative type of research. The population of this study were a adolescent that domiciled in Kuranji sub-district. Sample were the high school adolescents that studying in Kuranji sub-district. The technique of sampling will use the purposive sampling. Criteria for participants are adolescents aged 15 until 19 years old, live in Kuranji sub-district, never getting infection of COVID-19 for themself or main family. Total participant amount 190 will be divided into

three groups according to classification of conspiracy belief level. First group are the individuals with low level of conspiracy belief amount 48 participants. Second group are the individuals with medium level of conspiracy belief amount 100 participants. Third group are the individuals with high level of conspiracy belief amount 42 participants. The classification of each groups based on COVID-19 conspiracy belief scale.

The instrument using two scales that were constructed by researcher through reliability and validity test (using SPSS 16.0 and professional judgement). COVID-19 conspiracy belief scale based on theory from van Prooijen and van Lange (2014) that consist 16 item. Obedience in following health protocols scale based on theory from Milgram (1974) that consist 39 item. The scales were shared through google form link. The data was analyzed by Kruskal-Wallis test in SPSS 16.0.

## 3 RESULTS

### 3.1 Description of Subject

Table 1: Subject Description.

COVID-19 Conspiracy Belief Level	Gender (%)	Belief to Other Conspiracy (%)	F
Low Level Group	Male: 25 Female: 75	Ever: 25 Never: 75	48
Medium Level Group	Male: 27 Female: 73	Ever: 44 Never: 56	100
High Level Group	Male: 19.05 Female: 80.95	Ever: 54.76 Never: 45.24	42
Total			190

According to table 1, it can conclude that group with low level of COVID-19 conspiracy belief have lower frequency of belief in other conspiracies. Meanwhile, group with medium level of COVID-19 conspiracy belief have almost balance on frequency of belief or disbelief in other conspiracies. Conversely, group with high level of COVID-19 conspiracy belief have higher frequency of belief in other conspiracies. It means that adolescents who believe in one conspiracy tend to believe in other conspiracies.

### 3.2 Description of Obedience in Follow Health Protocols

Table 2: Description of Obedience in Follow Health protocols based on COVID-19 Conspiracy Belief.

Group	Mean	SD	SE	Min	Max
Low Level	124.23	13.994	2.020	80	156
Medium Level	110.71	9.831	0.983	74	140
High Level	106.21	14.018	2.163	76	132
Total	113.13	13.674	0.992	74	156

According to table 2, it can conclude that each groups based on COVID-19 conspiracy belief have differences in mean. Group with high level of COVID-19 conspiracy belief have lower mean in obedience to health protocols compared with both of group that medium and low level of COVID-19 conspiracy belief. Conversely, group with low level of COVID-19 conspiracy belief shows higher mean in obedience to health protocols. Groups with low level of COVID-19 conspiracy belief classified to high level of obedience in follow health protocols. Meanwhile, group with medium and high level of COVID-19 conspiracy belief classified to medium level of obedience in follow health protocols. It means that the higher individuals believe in COVID-19 conspiracy, the lower level of obedience in following health protocols. Overall, sample classified to medium level of obedience in following health protocols.

### 3.3 Normality Test

Table 3: Normality Test.

	Unstandardized Residual
N	190
Normal Parameters	
Mean	0.0000000
Deviation Standard	11.86831998
Most Extreme Differences	
Absolute	0.064
Positive	0.057
Negative	-0.064
Kolmogorov-Smirnov Z	0.883
Asymp. Sig. (2-tailed)	0.417

Normality test was analyzed by using the Kolmogorov-Smirnov in SPSS 16.0 with criteria normal distribution if (p) value > 0.05. The data

distributions according to the test is normal, (p) = 0.417.

### 3.4 Homogeneity Test

Table 4: Homogeneity Test.

Levene Statistic	df1	df2	Significant
7.042	2	187	0.001

Homogeneity test was analyzed by using the Levene's test in SPSS 16.0 with the criteria of data variant would be homogen if (p) value > 0.05. The table 4 shows that the data variant is not homogen, (p) = 0.001.

### 3.5 Kruskal-Wallis Test

Table 5: Kruskal-Wallis Test.

Test Statistic	Obedience	Rank		
		Group Based on Conspiracy Belief Level	N	Mean Rank
Chi-Square	46.162	Low Level	48	140.89
Df	2	Medium Level	100	84.76
Asymp. Sig	0.000	High Level	42	69.20

Data was analyzed by using Kruskal-Wallis test to see the differences between COVID-19 conspiracy belief level on obedience in follow health protocols among adolescents. The test shows (p) value < 0.05 (sig. p = 0.000), it means that there are a significant differences in each groups. Table 5 shows the differences between mean ranks of each groups. The low level group shows the highest ranks in obedience to health protocols. Conversely, the high level group shows the lowest ranks in obedience to health protocols.

## 4 DISCUSSION

This study has found that there were significant differences of obedience in following health protocols based on COVID-19 conspiracy belief level among adolescents. All groups based on COVID-19 conspiracy belief shows the different mean score on obedience in following health protocols. Adolescents in low level group of COVID-19 conspiracy belief shows the highest obedience in following health protocols rather than adolescents in medium and high

level groups of COVID-19 conspiracy belief. It can conclude that the lower level of adolescent's belief to COVID-19 conspiracy, the higher obedience level in following health protocols. The previous study by Allington et al. (2020) has found that there was negative strong relationship between believing in COVID-19 conspiracy and engagement in following health protocols. Also, the study by Biddlestone, Green, and Douglas (2020) and study found that COVID-19 conspiracy belief causing individuals low intention on engagement in following health protocols.

The current study has found that adolescents who have high level of conspiracy belief are likely disbelieve to COVID-19 risk and assume that COVID-19 as a common flu. Imhoff and Laberty (2020) in the previous study said that individuals who underestimate the risk of COVID-19 tend to ignoring health protocols. Conversely, perceived vulnerability and perceived severity of COVID-19 had significant indirect effects on intention to following health protocols (Prasetyo et al, 2020). It can conclude that believe to COVID-19 conspiracy is affecting the level of adolescent's obedience in following health protocols. The educational and health institution should educate adolescents about the serious impact caused by COVID-19 and also inform the COVID-19 hoax so that adolescents become more obey in following health protocols.

The same as previous study by Douglas (2021), the current study has found that individuals who believe in one conspiracy tend to believe in other conspiracies. Individuals who believe in one conspiracy theory could think that other conspiracies also seem more plausible. This occurs because conspiracy theories typically cohere with the important and secret things which covered up or hidden from the public.

The current study has the limitation, this study only examine the difference of obedience based on the level of COVID-19 conspiracy belief on adolescents. The next studies should compare the obedience in following health protocols based on COVID-19 conspiracy belief in another range of age and education level. Also, it's quite difficult to get the sample who appropriate with criteria of sampling, so the next studies should be conducted in a larger sample.

## 5 CONCLUSIONS

There are significant differences in obedience of health protocols based on level of COVID-19

conspiracy belief among adolescents. The lower COVID-19 conspiracy belief, the higher obedience in following health protocols. Overall, adolescents in Kuranji sub-district were classified to medium level in obedience of health protocols. The current study has prove the negative impact of COVID-19 conspiracy beliefs in prevent the spread of COVID-19 especially obedience in following health protocols.

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