

# KNOWLEDGE, ATTITUDE, AND BEHAVIOR ON CLEAN AND HEALTHY LIVING PROGRAM BEHAVIOR (CHLB) AMONG HEALTH CADRE IN INDONESIA DURING THE COVID-19 PANDEMIC: AN OBSERVATIONAL STUDY

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**Keywords:**

Health protocols,  
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**ABSTRACT**

The Indonesian government has launched a program of Clean and Healthy Living Behavior (CHLB) (in Indonesian, namely of the program is Clean and Healthy Living Behavior or PHBS) that has been implemented, and can used to preventing Covid-19. So it is necessary to research knowledge, attitude and behavior of CHLB in carrying out health protocols to minimize the Covid-19 period. This study is observational study with health cadre in Karanganyar, Sragen, and Sukoharjo district with purposive sampling to reach this sample. A total of 114 respondents and a complete questionnaire are 107, or response rate was 93.9%. The instruments was standardized Cronbach's Alpha ( $\alpha = 0.861$ ). Data analyzed used descriptive statistics (percentage, mean, standard deviation). The average knowledge score was statistically significant ( $p < 0.05$ ) varied by respondents' age, gender, education. The average score of attitudes toward COVID-19 was statistically significantly varied by educational attainment, occupation, and family income. The average score of preventive behavioral practices toward COVID-19 was statistically significantly varied by occupation. Knowledge, attitude, and behavior of CHLB in carrying out health protocols prevent Covid-19.

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## 1. INTRODUCTION

Since the first outbreak was reported in Wuhan, China, in December [2019], the Coronavirus (COVID-19) has quickly gained global attention. WHO declared the virus outbreak a pandemic on March 11, 2020. Currently, more than 100 million people have been infected with COVID-19, with more than two million deaths worldwide [2]. Covid-19 data in Indonesia is more than 1 million in 2021, with a death rate of

25.000. Central Java is one of the highest contributors to the number of deaths in Indonesia, with a total of 118 thousand cases with the number of deaths more than 20% of the total deaths in Indonesia [3]. To slow the rate of infection and death, governments in most countries have implemented various public policies to prevent the transmission of Covid-19, ranging from social distancing, wearing masks, washing hands, travel restrictions, and even quarantine lock-down [4]. In handling Covid-19, the Indonesian government has issued policies on Large-Scale Social Restrictions, which refer to Law Number 6 of 2018 concerning Health Quarantine [5]. The implementing regulations are Government Regulation Number 21 of 2020 concerning Large-Scale Social Restrictions and Presidential Decree on Health Emergencies [6]. To counter the impact of Covid-19. From an economic and social perspective, the government has taken several policies, including Regulation of the Minister of Finance of the Republic of Indonesia Number 23/Pmk.03/2020 concerning Tax Incentives for Taxpayers Affected by the Corona Virus Outbreak [7]; Regulation of the Financial Services Authority of the Republic of Indonesia Number 11 /Pojk. 03/2020 concerning National Economic Stimulus as a Countercyclical Policy on the Impact of the Spread of Corona Virus Disease 2019 [8]; and Instruction of the President of the Republic of Indonesia Number 4 of 2020 concerning Refocussing of Activities, Reallocation of Budgets, and Procurement of Goods and Services in the Context of Accelerating Handling of Corona Virus Disease 2019 (Covid-19) [9]. In addition, the government also took policies such as reducing electricity costs, reducing credit, and pouring out a budget of Rp. 405.1 trillion to meet needs amid the Covid-19 outbreak through the 2020 State Budget as a form of assistance to the community. In addition, the government also took policies such as reducing electricity costs, reducing credit, and pouring out a budget of Rp. 405.1 trillion to meet needs amid the Covid-19 outbreak through the 2020 State Budget as a form of assistance to the community. In addition, the government has also taken policies such as reducing electricity costs, reducing credit, and disbursing a budget of Rp. 405.1 trillion to meet needs amid the Covid-19 outbreak through the 2020 State Budget as a form of assistance to the community.

Of all these policies, knowledge is critical in preventing Covid-19. The knowledge that can prevent the transmission of COVID-19 needs to be understood by every component of society because it is one of the determining factors for preventing the transmission of COVID-19. In addition, the community's attitude is very much needed to make the COVID-19 mitigation a success. According to the Theory of Planned Behavior, attitude is one component that shapes individual health behavior. The theory explains that attitude can determine the success of COVID-19 prevention. The Indonesian government has launched a program of Clean and Healthy Living Behavior (CHLB) (in Indonesian, namely of the program is Clean and Healthy Living Behavior or PHBS) that has been implemented, and can used to preventing Covid-19. So it is necessary to research knowledge and behavior of a clean and healthy lifestyle (PHBS) in carrying out health protocols during the Covid-19 period.

## **2. Methods**

### ***2.1 Settings and design***

This study is observational study with criteria for selecting respondents: an adult health cadre and could read and write in Karanganyar, Sragen, and Sukoharjo district.

### ***2.2 Sample size and sampling***

The study protocol was prepared based on the Indonesian Ministry of Health checklist for measuring knowledge, attitude, and behavior toward CHLB and the guidelines for conducting the behavioral insights on COVID-19, developed by the WHO Regional Office for Europe. The study followed a purposive sampling to reach this sample.

### 2.3 Study instrument

The structured questionnaire, developed by the Indonesian ministry [10] and WHO [11], was customized and finalized for the Indonesian context. The tool was then translated into Bahasa and pre-tested. It had four sections. The first three sections asked questions about outcome variables, and the last section asked questions about covariates.

### 2.4 Outcome variables

Knowledge related to CHLB and COVID-19 was assessed in three dimensions: (1) knowledge about symptoms of Coronavirus; (2) knowledge, attitude, and behavior about treatment with CLHB and vaccine of Coronavirus; and (3) knowledge about the transmission and incubation period of Coronavirus. A total of 21 items were included in the questionnaire to assess the respondents' knowledge, attitudes and behavior related to CHLB and COVID-19. The reliability analysis of these 21 items was performed and found an acceptable level of standardized Cronbach's Alpha ( $\alpha = 0.861$ ). The total score of these 21 items, with a higher score indicating better knowledge and attitude about CHLB and COVID-19.

### 2.5 Data collection

The data for this study were collected from March to October 2020. The country was partially locked during this period, but this is possible to conduct face-to-face data collection with restriction protocol of Covid-19 and a small cadre. A total of 114 respondents and a complete questionnaire are 107, or the study's response rate was 93.9%.

### 2.6 Statistical analysis

This study used descriptive statistics (percentage, mean, standard deviation). The data for this study were analyzed using the Statistical Product and Service Solutions (SPSS) software.

## 3. Results

Sample characteristics Table 1. presents both weighted and unweighted sample characteristics of the study population. All of the samples are a woman and have mean age was 44.7 years. The respondents' highest percent (36.5%) was from 40–49 years. Respondents had senior high school (32.7%), junior high school, Undergraduate, Elementary school, and another 0.9% had postgraduate. More than 50% of cadres are housewives who do not work (62.6%), and the rest work in government and private sectors. A lot of the respondents were married (97.5%). Family income cadre is Upper regional minimum wage 27.1%, regional minimum wage 35.5%, and Under regional minimum wage 36.4%.

**Table 1.** The characteristics of the respondents (n=107)

Variable	frequency	Percent (%)
<b>Age (in years)</b>		
18-24	2	1.9
25-30	4	3.7
31-39	29	27.1
40-49	39	36.5
50 years and above	33	30.8
<b>Educational</b>		
Elementary school	20	18.7
junior high school	28	26.2
senior high school/ vocational school	35	32.7
Undergraduate	23	21.5
Post-graduate	1	0.9

<b>Occupation</b>		
unemployed	67	62.6
Government	11	10.3
Private sector job	29	27.1
<b>Family Income</b>		
Under <i>regional</i> minimum wage	39	36.4
<i>regional</i> minimum wage	38	35.5
<i>Upper regional</i> minimum wage	29	27.1
<b>Marital status</b>		
Married	99	92.5
Unmarried	8	7.5

Table 2. shows that the average knowledge score was statistically significant ( $p < 0.05$ ) varied by respondents' age, gender, education. The average score of attitudes toward COVID-19 was statistically significantly varied by educational attainment, occupation, and family income. The average score of preventive behavioral practices toward COVID-19 was statistically significantly varied by occupation.

**Table 2.** Differentials of knowledge, attitudes, and preventive behavioral practices toward COVID-19 (weighted sample, n= 107)

Variable	Knowledge score			Attitude Score			Behavior Score		
	Mean	SD	Sig	Mean	SD	sig	Mean	SD	sig
<b>Age (in years)</b>									
18-24	5.0	1.41421	<b>0.000</b>	9.5	.70711	<b>0.128</b>	12.0	1.41421	<b>0.705</b>
25-30	5.3	.95119		9.9	.37796		12.7	1.88982	
31-39	5.4	.94543		9.8	.51441		12.1	1.77374	
40-49	5.2	1.12640		9.7	.60776		12.9	1.55963	
50 years and above	3.8	1.65571		8.9	2.52622		12.2	3.54215	
<b>Educational</b>									
Elementary school	3.7	1.65250	<b>0.000</b>	8.2	3.28751	<b>0.001</b>	11.6	3.96943	<b>0.478</b>
junior high school	4.6	1.18153		9.6	.75107		12.7	2.52057	
senior high school/ vocational school	5.2	1.16533		9.9	.37349		12.8	1.94158	
Undergraduate	5.6	.68399		9.9	.31530		12.4	1.53516	
Post-graduate	2.0			9.0			10.0		
<b>Occupation</b>									
unemployed	4.7	1.46630	<b>0.072</b>	9.3	1.84444	<b>0.359</b>	12.6	2.37931	<b>0.04</b>
Government	5.7	.64667		10.0	0.00000		12.5	1.63485	
Private sector job	4.6	1.52160		9.6	.68229		12.0	2.51400	
<b>Family Income</b>									
Under <i>regional</i> minimum wage	4.5	1.32520	<b>0.011</b>	9.0	2.15473	<b>0.02</b>	12.3	3.20598	<b>0.723</b>
<i>regional</i> minimum wage	5.1	1.13172		9.8	.55929		12.4	2.17804	
<i>Upper regional</i> minimum wage	5.4545	1.01076		10.0000	0.00000		12.8182	1.56255	

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<i>Marital status</i>									
Married	5.0108	1.19323	<b>0.852</b>	9.5484	1.31477	0.442	12.5914	2.29478	<b>0.391</b>
Unmarried	4.2222	1.85592		9.8889	.33333		11.8889	2.75882	

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#### 4. Discussion and Conclusion

Education can improve health because the level of education can affect the healthy behavior of families with a less supportive level of education will lead to low environmental awareness, the better the level of formal education so that it will mature understanding of environmental health knowledge and awareness of maintaining environmental health including the application of CHLB principles. Based on data Mubarak also explains that education is a process in a series of influences and thus will cause behavioral changes in him because it cannot be denied that the higher a person's education, the easier it is for them to receive health information. On the other hand, if a person has a low level of education, it will hinder their acceptance, health information, and new values are introduced [12]. The data Kusumawati, explained a relationship between education and clean and healthy living behavior. Who also suggested that socio-economic status, including education, has a relationship with clean and healthy living behavior. The existence of a link between education and clean and healthy living behavior has a significant relationship with health. The higher the level of education, the easier it is to accept the concept of healthy living independently, creatively, and sustainably. The results of Amalia's study in 2009, stated a very significant relationship between the level of education and CHLB. Knowledge can form certain beliefs so that a person behaves by these beliefs with good environmental health knowledge [13]. Mubarak explains that behavior based on knowledge will be more lasting than behavior not based on knowledge because this behavior occurs due to coercion or rules that require it to act. The study explains that there is no significant relationship between knowledge and clean and healthy living behavior. The work environment can make a person obtain health information either directly or indirectly. Clean and healthy family behavior is measured from physical and mental aspects and measured by productivity in the sense of having a job so that it is expected to further encourage or facilitate families for PHBS [14] and the otherhand which explains that the type of work has a significant relationship with clean and healthy living behavior in the family. The higher the socio-economic status, which includes the type of work, the higher, the better the clean and healthy living behavior in the family, and conversely, the lower, the worse the healthy living behavior. With increasing age, a person's behavior will change, and with increasing age, a person will find it difficult to receive information. They are less active, susceptible to disease, and tend to ignore CHLB. According from the literatur, young people are easier to receive information and are more dynamic than older people, so they are more receptive to behavioral changes. In addition, at the age of young adults, their rational thinking habits increase when viewed from their cognitive development. They are also usually quite active and rarely receive serious illnesses [15] and a ge have influence on the level of CHBL [16].

Furthermore, there is a significant interaction between the action variables and age. Respondents whose age is < 40 years have a probability of increasing the level of CHBL in household arrangements by 55.9%. A significant negative relationship between age and behavior, namely the younger a person's age, the better his behavior and literure before explains that age is a variable that is less correlated with behavior because it is considered to be mediated by attitudes.

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