# APPLICATION OF CLEAN AND HEALTHY LIFESTYLE (CHL)FOR SAHID UNIVERSITY STUDENTS IN THE COVID-19 PANDEMIC ERA

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#### **Abstract**

Higher education is one of the educational institutions that are targeted for CHL. The purpose of this study is to describe clean and healthy living behavior (CHL) in Sahid University Students in the Covid-19 Pandemic Era, thus it is hoped that the transmission of the Covid-19 virus outbreak will decrease even if every individual is aware and cares, by implementing CHL is in his life. This research was conducted at Sahid University. A sample of 100 people was selected using the cluster random sampling method. This study is a quantitative study using a cross-sectional design. The independent variables in this study are knowledge and attitudes about CHL, while the dependent variable is clean and healthy living behavior. The data is then processed using SPSS to see if there is a relationship between the variables studied. The results of the study on the knowledge variable obtained a p value of  $0.027 < \alpha (0.05)$ , meaning that there was a relationship between the level of knowledge on CHL in the Covid-19 Era. As for the attitude variable, the value of  $p (0.075) > \alpha (0.05)$  means that there is no relationship between attitudes towards CHL in the Covid-19 Era. One of the factors that have an important role in clean and healthy living behavior is student knowledge.

Keywords: Knowledge, Behavior, CHL, Attitude, Covid-19

### 1. INTRODUCTION

The Covid-19 pandemic has changed the world order. Many victims as a result of the viciousness of this virus have disturbed the whole world. The impact caused by the outbreak of this virus is the restriction of human activities or activities in order to suppress the rate of spread of the virus. Indonesia is one of the countries that feel the impact. Looking at the current state of Indonesia, which is the country with the most Covid-19 cases in Southeast Asia. To anticipate the transmission of the virus, the government issued policies such as social distancing, physical distancing, to large-scale social restrictions (PSBB). This condition requires people to stay at home, study, work, and worship at home. As a result of this policy, the education sector such as universities stopped the face-to-face learning process. Instead, the learning process is carried out online which can be carried out from the homes of each student.

In accordance with the Circular Letter of the Minister of Education and Culture Number 4 of 2020 concerning the implementation of education policies in the emergency period of the spread of the corona virus disease (Covid-19), it is recommended to carry out the learning process from home through online learning. Readiness on the part of service providers and students is a demand for the implementation of online learning. The implementation of online learning requires supporting devices such as computers or laptops, and other tools as intermediaries which of course must be connected to an internet connection.

Diseases caused by viruses spread very quickly, anyone can be exposed to this virus, from infants to the elderly. People who are susceptible to this virus are people who have low immunity and who have a history of diseases such as: respiratory disorders, diabetes, cancer, liver or other serious diseases.

This pattern of spread of the Covid-19 virus can occur due to transfer from human to human through droplets released from coughing and sneezing (Huang et al., 2020). This is in line with what was stated by (Director General of P2P, 2020) that Covid-19 is transmitted through contact between droplets not through air transmission, individuals who are at risk of contracting Covid-19 are people who are in close contact with confirmed people or people who are caring for patients, covid-19 The most effective prevention methods in the community are as follows: 1) Keeping hands clean with a hand sanitizer if it doesn't look dirty, and by washing hands if it looks dirty; 2) Avoid touching eyes, nose and mouth; 3) Practice coughing and sneezing etiquette by covering your nose and mouth with the inside of your upper arm or a tissue, and throwing the tissue in the trash; 4) Wear a medical mask if you have respiratory symptoms and perform hand hygiene after disposing of the mask; 5) Maintain a distance of at least 1 meter from people who have symptoms of respiratory problems. Of course, this can be realized by implementing clean and healthy living behavior (CHL) in everyday life. CHL is a number of behaviors carried out on the basis of personal awareness, which makes individuals, families, groups or communities able to help themselves (independently) in the health sector and play an active role in realizing public health (Kemenkes, 2011).

One of the biggest impacts caused by the Covid-19 virus is in the world of education. In Indonesia itself, all educational process activities are carried out online and offline to prevent the spread of the Covid-19 virus from kindergarten to university levels. This online learning must be implemented to break the chain of the spread of the Covid-19 virus. There are various impacts that are felt in this online learning such as the results of research conducted by (Argaheni, 2020) as for the impact of online lectures, namely: become passive, less creative and productive, information/concepts on students that is less useful, students experience stress, increasing students' language literacy skills. Similar research was also conducted by (Sari et al., 2021) where the results of his research showed that the learning process during the pandemic changed using distance learning, and this had an impact on teachers who were less than optimal in providing learning materials to students and disrupted the boring learning process. Learning objectives are not achieved, so the material is incomplete, the use of media in learning is not optimal, student assessments are only cognitive. If this condition is left unchecked for a long time, there will certainly be a decline in the world of education, especially in Indonesia. For this reason, the prevention of the Covid-19 virus must be handled appropriately.

As for the efforts that can be made, namely by implementing clean and healthy living behaviors, such as research conducted (Nengsi et al., 2021) namely the relationship between clean and healthy living behavior to the incidence of Covid-19 where the results of the research are that clean and healthy living behavior in preventing Covid -19 is pretty good. Furthermore, research conducted by (Daniyanti, 2020) is an analysis of clean and healthy living behavior in preventing the transmission of Covid-19 with the results showing that most of the lecturers of Ngudia Husada Madura sticks have implemented clean and healthy living behavior with a very high category, preventive behavior towards Covid-19 transmission is very high category.

At Sahid University, the spread of Covid-19 was in a quite alarming situation, where Sahid University had implemented a lockdown to prevent the Covid-19 virus, because there were employees and lecturers who were exposed to this virus. To prevent the spread of Covid-19 in the Sahid University environment, especially for Environmental Engineering students, it is necessary to describe the application of student clean and healthy living behavior to prevent the spread of Covid-19. It is hoped that based on the results of this study, it can provide an overview of the clean and healthy behavior of Environmental Engineering students at Sahid University, so that policy steps can be determined in terms of preventing the spread of the Covid-19 virus in Environmental Engineering students in particular. And thus if the spread of the Covid-19 virus can be minimized, of course, face-to-face learning will soon be possible.

### 2. RESEARCH METHODOLOGY

This research is a quantitative research in which the research uses a cross-sectional design. This research was conducted in April 2020. The population in this study were all 2nd semester Environmental Engineering students. The sample or respondents in this study were determined using the cluster random sampling method and obtained 100 samples. The instrument used in collecting data in this study was a question and answer questionnaire to determine the characteristics of the respondents and to determine the level of knowledge, attitudes, and CHL in the university environment.

Knowledge and actions are measured using the Guttman scale, while attitudes are measured using a Likert scale. Knowledge and action variables are said to be good if they get a score of 76%-100%, enough if they get a value of 56%-75%, and less get a score of 40%-55%. Attitude variable is said to be positive if the answer is >20 and negative is 20.

From the results of processing the data obtained are grouped based on the independent variables, namely the level of knowledge and attitudes, and the dependent variable, namely the act of living clean and healthy. The data were then analyzed to see whether there was a relationship between the level of education and CHL, as well as attitudes with CHL in students. Then from the data obtained, data processing is carried out using

the help of the SPSS application. The processed data is then presented in the form of a frequency distribution table and percentage

### 3. RESULTS AND DISCUSSION

Table 1 shows that most of the respondents are female, amounting to 68 people (68%). Female respondents in this study showed a greater percentage in conducting CHL than men. This condition is caused by differences in biological and psychological development in men and women (Notoatmodjo, 2007). Gender is a predisposing factor or a factor that makes it easier for someone to behave (Notoatmodjo, 2012). In general, women are more diligent in maintaining cleanliness than men. In eastern culture in everyday life, women are usually required to maintain the cleanliness of themselves and the environment. For example, women are usually accustomed to sweeping with the aim of maintaining a clean environment or maintaining personal hygiene by brushing teeth to diligently cutting nails to maintain appearance.

Table 1. Characteristics of Research Subjects by Gender and Age

Characteristics	n	%
Gender		
Male	32	32
Female	68	68
Age (Year)		
18-20	25	25
21-23	35	35
24-26	20	20
27-29	12	12
30-32	5	5
33-35	3	3
Total	100	100

The most age group is in the age group 21-23 (35%). The older you get, the more experience you have, so your knowledge will increase. This amount of knowledge can make a person better prepared to face something (Notoatmodjo, 2003). With increasing age a person is usually accompanied by changes in behavior. With increasing age, a person will usually find it difficult to receive information. Sometimes they become less active, susceptible to disease, and tend not to care about clean and healthy living behavior. Receiving information at a young age will be easier to digest than at an old age. Individuals at the age of young adults when viewed from their cognitive development, they have the habit of thinking rationally. They are usually quite active in activities on campus, and rarely experience serious illnesses (Wantiyah, 2004). The results of research conducted in Yogyakarta said there was a relationship between age and behavior, namely the younger a person's age, the better his behavior (Wantiyah, 2004).

Table 2. Characteristics of Research Subjects based on Knowledge, Attitudes, Actions, and Implementation of Clean and Healthy Life Behavior

Characteristics	Frequency	%				
Knowledge						
Good	73	73				
Enough	24	24				
Less	3	3				
Attitude						
Positive	84	84				
Negative	16	16				
Action						
Good	77	77				
Enough	16	16				
Less	7	7				
<b>Application</b>						
CHL	34	34				
CHL	66	66				
Total	100	100				

Respondents' knowledge was categorized into good, sufficient, and poor categories. Table 2 shows the results that respondents' knowledge of CHL is categorized as good as many as 73 respondents 73%. Knowledge is an element in shaping one's own behavior. Basically, individual behavior is determined by the individual's own knowledge. Good knowledge is usually obtained through places of education, both formal and non-formal. The existence of increasingly advanced information media at this time also contributes to increasing a person's level of knowledge. Knowledge about healthy living can also come from external factors such as the habits of parents, family, friends, community, and also lecturers. Knowledge itself is an illustration of the extent to which students know and understand about CHL. The knowledge factor is a predisposing factor to the formation of a behavior that becomes the basis or habit, belief, and socio-economic level. Limited knowledge can reduce a person's motivation to behave in a clean and healthy life (Green, 1980).

The results of the frequency distribution of the respondent's attitude variable were categorized into positive and negative. Table 2 shows that most of the respondents in this study had a positive attitude towards CHL, which amounted to 84 people (84%). Apart from being seen from the perspective of respondents' knowledge, attitude itself is also the most important domain in shaping a person's behavior. Attitude is something that has a tendency to respond, both positive and negative responses to people, objects or in certain situations. Attitude with behavior is not the same and behavior itself also does not always indicate a person's attitude. A person can often show changes in actions that are contrary to his attitude. A person's attitude can change when they get additional information about a particular object (Notoatmodjo, 2010).

The frequency distribution of the respondent's action variables is classified into good, sufficient, and poor. Table 2 shows that the respondent's actions are in the good category, amounting to 77 people (77%). Attitude is a person's tendency to take action. In essence, attitudes cannot necessarily be realized in action, because the formation of an action is caused by the availability of facilities or infrastructure. Action itself is divided into four levels, namely perception, guided response, mechanism, and adoption. Perception is the moment when a person begins to know and determine the object related to the action to be taken. Guided response (guided response) is an action that is carried out based on what has been exemplified in the right order. Mechanism is when someone can do something right and is also optimistic, or it has become a habit. Adoption is a form of application or action that has developed well, which means the embodiment of this action has been modified and does not reduce the element of truth from the action (Notoatmodjo, 2010).

The frequency distribution of the respondents' application variables is categorized into 2 categories, namely, clean and healthy living behavior and not practicing CHL. Table 2 shows the results that the application of respondents who behaved in a clean and healthy life was 34 respondents (34%). CHL is an individual's manifestation of a stimulus or object associated with a disease leading to illness. The application of behavioral manifestations in terms of maintaining and maintaining personal health so as not to experience illness is divided into 2. First, namely the application carried out on someone who has a healthy body condition so that his health is maintained and will continue to survive. This behavior is often referred to as healthy behavior, which includes behavior (overt and convert behavior) as a form of behavior to overcome disease and its causes, as well as behavior in seeking to improve health (promotive behavior) (Notoatmodjo, 2007).

Relationship of Knowledge with Clean and Healthy Living Behavior The knowledge possessed by a person usually tends to affect behavior changes within the individual. Changes in the individual referred to here are changes that are in line with the elements of health caused by several factors. These factors include education taken, personal experience, traditions, and customs both in the general community and campus. This means that the higher the level of knowledge a person has, the more people will do CHL (Notoatmojo, 2012).

Table 3. The Relationship Between Knowledge and Implementation of Clean and Healthy Life at Sahid University

	CHL Action						
Knowledge	Yes		No		Total		P value
	n	%	n	%	n	%	_
Good	29	29	31	31	60	100	
Enough	3	3	27	27	30	100	0,027
Less	2	2	8	8	10	100	
Total	34	34	66	66	100	100	

Table 3 shows that from a total of 100 respondents, 34 people (34%) of respondents have done CHL. If viewed more specifically, respondents with good knowledge and have done CHL are 29 people (29%) and 31 respondents (31%). Respondents who have sufficient knowledge and apply CHL are 3 people (3%) and 27 respondents do not apply CHL (27%). P value is 0.027 < (0.05), then H0 is rejected, which means that there is an influence between knowledge and CHL in Environmental Engineering students at Sahid University. These results indicate that most of the respondents have good knowledge and understand about clean and healthy living behavior. So it is hoped that the implementation of CHL in the higher education environment is getting better and increasing.

However, there are still many respondents who have not implemented CHL in the university environment as many as 66 respondents (66%). This result is not caused by the low CHL by students, but for the assessment of CHL indicators if one of the indicators of CHL is not carried out, it is said that the person or respondent has not carried out CHL behavior.

Based on the results obtained, it is necessary to have cooperation between universities and students in order to improve counseling regarding clean and healthy living behavior to students as a whole. This action needs to be taken because there are still respondents who do not understand the CHL program, especially the components in it. The Covid-19 task force in universities is expected to increase the introduction of CHL and motivate students to change CHL behavior for the better. The main thing is the habit of smoking in the college environment which is usually done by male students, as well as cleaning campus toilets after use.

The results of the study, which was conducted in Pati Regency, stated that there was a relationship between knowledge and the application of CHL in disposing of waste in its place (Raharjo, 2014). Research in West Sumatra also showed similar results, where there was a relationship between knowledge and community behavior in disposing of waste (Yulida, 2016). Another study in 2013 involving the elderly as respondents stated that there was an effect of the level of knowledge with CHL in the elderly (Kustantya, 2013). Similar results were also shown by a study conducted in North Tapanuli. The study found that there was a relationship between students' knowledge and CHL actions in schools (Tanjung, 2016).

One of the factors that determine health behavior in individuals is the level of knowledge. Knowledge itself is the basis of a person in implementing actions, so that everyone who will practice an action usually begins with the ability to know, then has an idea to take an action based on the knowledge he already has (Notoatmodjo, 2012). In essence, knowledge is the embodiment of the element of knowing. This usually happens when the individual has made observations on a particular object. These observations occur through the five human senses, namely the senses of sight, hearing,

smell, taste, and touch, by itself. When someone is looking at the results of this knowledge, it will affect the intensity of attention or perception of a particular object. Usually actions taken based on knowledge will produce something that lasts longer when juxtaposed with actions without or without being based on knowledge. So, knowledge is the main thing that is most needed so that all people are able and can more easily change their behavior in the future for the better.

The term self-knowledge is the lowest level of knowledge. It can be concluded that the activity or action in an effort to recall an event that has been experienced or done before (Notoatmodjo, 2012). Knowledge is a collection of several theoretical and reality discoveries that allow an individual to be able to understand an event or occurrence and can be used in an effort to solve problems that are happening or befall him. Knowledge usually comes from direct personal experience or from the experience of others. Knowledge can be increased through health promotion activities either alone or in groups. Activities to increase knowledge, especially regarding the health sector, aim to achieve behavioral changes in oneself, family, and society in activities to improve optimal health degrees (Notoatmodjo, 2010). Knowledge has to do with CHL. Knowledge is basically a guide in shaping a person's actions (overt behavior) (Maulana, 2009). The results of research conducted in Manado City show that actions based on the element of knowledge will be more durable or lasting than actions that are not based on knowledge (Saibaka, 2016). From the results obtained that most people's knowledge about CHL is in the good category. Knowledge, attitudes, and actions or behavior are things that are related to one another and influence each other. The level of knowledge can affect a person's attitudes and behavior (Achmadi, 2013).

Relationship of Attitude with Clean and Healthy Life Behavior Attitude is generally the output of a reaction that is still closed in the individual to a stimulus. Attitude is a form of embodiment of an action against the invisible, and is still in the form of a person's perception and readiness in reacting to the stimuli around him. Attitude can be assessed directly or indirectly. Attitude assessment is a form of the respondent's embodiment of opinion regarding a particular object (Notoatmodjo, 2012). In general, attitude can be formulated as a person's tendency when responding, either to respond positively or negatively to certain objects. Attitude has the meaning of a form of emotional depiction in a person between feelings of happiness, dislike, sadness, and so on. Despite having positive and negative attitudes, attitudes also have different levels of feelings of dislike, dislike, and so on. Basically, attitude is not always the same as action. Actions also do not always describe the embodiment of attitude to someone. Attitudes have the main elements including a belief, ideas on the concept of an object, emotional life, and a tendency to do something (Notoatmodjo, 2010).

The results of the frequency distribution of the attitude variable in Table 2 are categorized into positive and negative respondents. Table 2 shows that the majority of

respondents have positive attitudes towards CHL, which are 84 people (84%) and respondents who have negative attitudes are 16 people (16%).

Table 4. Relationship Between Attitude and Implementation of Clean and Healthy
Life at Sahid University

Clean and Healthy Living								
Attitude		Yes			No	Total		P value
	n	%		n	%	n	%	-
Positive	30	30	58		58	88	100	
Negative	4	4	8		8	12	100	0,075
Total	34	34	66		66	100	100	

Table 4 shows the results that 30 respondents (30%). As for respondents who have a negative attitude and do not CHL as much as 4 respondents 4%. Analysis test with SPSS showed that the value for P value is  $0.075 > \alpha$  (0.05), then H0 is accepted. That is, there is no relationship between attitudes and actions of healthy living in Environmental Engineering students at Sahid University. These results explain that most of the respondents have a positive attitude and understand the importance of CHL in the university environment, so it is very likely for them to carry out CHL. However, in reality there are still many respondents who have a positive attitude and have not implemented clean and healthy living behavior. Or it can also be said that in the implementation of CHL they are still lacking (58%). The formation of this positive attitude is very closely related to CHL in the university environment. This positive attitude can also be influenced by the knowledge possessed by the individual. Knowledge is a very basic and important thing to produce an action. Knowledge itself is important in supporting a person's psychic or behavior in everyday life (Notoatmodjo, 2010).

Attitudes are divided into two, namely positive attitudes and negative attitudes. A positive attitude in which there is a tendency to act in the form of approaching, liking, and expecting certain objects. While negative attitudes will tend to stay away, avoid, hate, and even dislike (Wawan, 2011). Attitudes have three supporting components, namely cognitive, affective, and conative components. The cognitive component is a representation of something that becomes a belief in an individual who has an attitude. The affective component is a feeling which includes the emotional aspect. The conative component is also an aspect that has a tendency to behave in accordance with the attitude that is owned by a person (Iswadi, 2017). Attitude itself is a manifestation of the reaction of individuals who are still closed to an object. In other words, attitude can be said to be a person's readiness and availability to take action.

Assessment of attitudes can be in the form of one's opinion or argument to a stimulus or object. Attitude is a willingness or readiness of a person's response to an object in a certain environment. Attitude is divided into four levels. The first level is receiving

(receiving), meaning that each individual (subject) displays the given stimulus (object). The second is responding (responding), which means providing feedback on the questions given, working on, and completing the tasks given in accordance with what has been given. The third is valuing, which means inviting other people to work together or discuss a problem at hand. Fourth, namely being responsible (responsible), meaning being able to be responsible for everything that has been chosen or become a choice (Iswadi, 2017). Generally, attitudes have characteristics, among others, not created since infancy but formed throughout the development of the individual's life in forming a relationship. Attitudes can also change, because basically attitudes can be learned and because of that there will also be changes in a person. If there is a situation in which there are certain provisions that can facilitate the attitude of that person. Then the attitude can not stand alone but usually will always have a close relationship with a particular object. Viewed from the side of motivation, feelings, and traits, this is the difference between attitude and knowledge possessed by a person (Iswadi, 2017).

Attitude itself has a function which is divided into four functions. The first function, attitude is used as a tool to adjust where the attitude is communicable which means it is something that is easy to walk so that it is possible to become a common property. Second, attitude is a tool that regulates behavior, someone knows that the habit patterns of young children are generally a form of natural reaction to things around them. Between the form of a stimulus and a reaction there is no consideration. But in adults who have matured, the form of stimulation is generally not given a direct reaction but a reflection of the existence of a conscious process in evaluating the stimulus. Third, it is used as a tool to regulate experiences, which is defined as humans in receiving an experience from the external environment, so that their attitude is not passive but accepts them actively. This means that the experiences that all come from external factors are not all carried out by a person but people also determine what he will do and what he will not do. Fourth, attitude as a form of statement of one's personality, which attitude often shows a personality in the individual. Attitude cannot be separated from the person who supports it. By looking at the attitude of a particular object, more or less people can see the individual's personality. So, attitude is the embodiment of the form of a personal statement, when we try to change attitudes in someone, we need to know how the previous condition of that person was. That way we will know, maybe or not that person can change his attitude in the future (Purwanto, 2009).

Research conducted in the city of Manado states that there is no relationship between the attitudes of respondents and CHL in the household. These results are in line with research conducted in Jakarta, which states that there is no influence between attitudes and CHL in the family (Irma, 2015). These results are not in accordance with research conducted in Sintang Regency. The study stated that there was a relationship between attitudes and CHL in schools for students of SD Negeri 25 (Kweruh, 2016). Another study in South Konawe Regency also showed similar results. The result is that there is a relationship between attitudes and CHL in 08 State Elementary School age children

(Kanro, 2017). The results of research conducted in North Bekasi also suggested that there was a relationship between attitudes and CHL in housewives (Rayhana, 2016). Research that has been conducted on knowledge and healthy living behavior results in P value of 0.027  $<\alpha$  (0.05) that  $H_0$  is rejected, meaning that there is a relationship between knowledge and CHL in Rangkah Village. Meanwhile, for the results of research on attitudes with clean and healthy living behavior, it was found that the P value was 0.075> $\alpha$  (0.05) that  $H_0$  was accepted, meaning that there was no influence between attitudes and CHL actions on Environmental Engineering students at Sahid University in the Covid-19 Era. .

#### 4. CONCLUSION

The results of the research that has been carried out conclude that there is a significant relationship between knowledge and CHL actions, and there is no significant relationship between attitudes and CHL actions in Environmental Engineering students at Sahid University in the Covid-19 Era.

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