

Knowledge, Attitude and Behavior of Methodist 2 Palembang High School Student towards Clean and Healthy Lifestyle (PHBS)

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Abstract

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Background: Clean and Healthy Lifestyle or namely PHBS (Perilaku Hidup Bersih dan Sehat) in Indonesia is a program from the Indonesian Ministry of Health that has been implemented since 1996. PHBS in school settings is very important to be realized in order to create a clean and healthy school environment so that the learning and teaching process can run effectively.

Aims: This study aims to describe the knowledge, attitudes and behavior of Methodist 2 High School students towards PHBS. In addition, this study also aims to see the relationship between PHBS knowledge and attitudes towards PHBS behavior in Methodist 2 Palembang High school students

Methods: This study uses a cross-sectional study involving 216 students obtained by calculating unpaired categorical analytic samples. Samples were taken using purposive sampling technique. Data was collected using a questionnaire distributed online via google form. The data obtained were processed using Chi Square through the SPSS 25.

Result: There were 216 respondents who met the inclusion and exclusion criteria of this study. The sample consisting of female (n=124 (57.4%)) and male (n=92 (42.6%)) and distributed evenly from 1st grade to 3rd grade (1st grade n=65 (30.1%), 2nd grade n=75 (34.7%), 3rd grade n=76 (35.2%)). Using average value as cut off point (12.7), most of the students of Methodist 2 Palembang high school had a sufficient knowledge of PHBS (n=132 (61%) and the rest of it had insufficient knowledge of PHBS (n=84 (38,9%)). With median value (57.6) as the cut-off point, it showed that most of the students had a sufficient PHBS attitude (n=118 (54.6%)) and the rest of it had insufficient attitude of PHBS (n=98 (45,5%)). With average value (13.2) as cut off point, most of the students had insufficient PHBS behavior (n=102 (52.8%)) and the rest of it had sufficient behavior of PHBS (n=102 (42,7%)). The results of the analysis found that there was no significant relationship between knowledge and PHBS behavior among Methodist 2 Palembang high school students (p value = 0.744) and there was a significant relationship between PHBS attitudes towards PHBS behavior among Methodist 2 Palembang high school students (p value = <0.001)

Introduction

Clean and Healthy Lifestyle or more commonly known as PHBS (*Perilaku Hidup Bersih dan Sehat*) in Indonesian is one of the Ministry of Health of the Republic of Indonesia programs that has been implemented since 1996.^{1,2} PHBS defined by the Indonesia Health Ministry as a collection of behaviors that are practiced on the basis of personal

awareness as a result of learning, which makes a person, family, group or community able to help themselves independently in the health sector and play an active role in realizing public health.¹ Healthy living behavior stated by Hitchcock, et al. in 2004 covering physical and emotional health care, not smoking, and not using narcotics.³ in 2001 Nies, et al. also stated that a good healthy lifestyle

includes adequate sleep (7-8 hours a day), eating nutritious foods, not drinking alcohol, and doing regular physical activity.⁴

PBHS has five arrangements, namely PBHS in households, schools, workplaces, health facilities and public places.^{1,2} PHBS arrangements in schools have eight indicators, namely: washing hands with clean water and soap before and after eating, consuming healthy snacks, using healthy latrines, exercising regularly, eliminating mosquito larvae, not smoking in the school area, throwing garbage in its place, and not consuming narcotics, alcohol, psychotropics and other addictive substances.^{2,5}

PHBS in the school setting aims to empower all school members (students, teachers and the school community) to implement a healthy lifestyle in order to create a clean and healthy school environment.^{1,6} Schools with a clean and healthy environment strongly support the learning and teaching process.^{1,2,6}

There are several factors that can affect the implementation of PHBS in schools, which are:⁷

1. The role of teachers in providing education regarding PHBS
2. Attitudes owned by schools in health care
3. School facilities that support the implementation of PHBS

According to Bloom's explanation in 1975 quoted in Notoadmojo in 2003, knowledge is a result of knowing and this occurs after someone has sensed a certain object. A person in carrying out an action is very dependent on the knowledge or cognitive domain.⁸ Knowledge has six levels of cognitive domain which are: knowledge,

comprehension, application, analysis, synthesis and evaluation.⁸⁻¹¹

Attitude is a closed response that a person gives to a stimulus or object. The meaning of a closed response is that the reaction has not been realized into an open behavior or in other words, attitude is a predisposition of a behavior.⁸

Behavior is all activities carried out by humans, where these activities can be observed directly or indirectly by outsiders.^{8,10,11}

In 2018 Riset Kesehatan Dasar (RISKESDAS) or basic health research in Indonesia stated that some of the PHBS indicators did not show a positive increase from the 2013 RISKESDAS results. The indicators were: smoking prevalence aged 10-18 years, lack of physical activity at the age of 10 years.¹² Another survey done by the Depok Public Health Office during 2013 and 2014 found a decrease in the percentage for implementing PHBS in school settings.^{13,14} The decrease in percentage occurred in indicators: consuming healthy snacks from 67.96% to 54%, throwing garbage in its place from 75.08% to 47.5% and several other indicators such as washing hands with clean water, using clean latrines, eradicating mosquito larvae.^{13,14} In 2017 Prautami conducted a study on high school students in a school in Palembang regarding PHBS behavior (smoking behavior), and found as many as 63.3% of high school students who smoke.¹⁵ In addition to smoking, in Palembang itself there are also problems in terms of drug use behavior. The National Narcotics Agency or Badan Narkotika Nasional (BNN) of South Sumatra in 2019 stated that there were more than 96,000 cases of drug use, where most of the users were teenagers.

Objectives

This study is conducted with the aim of knowing the description and relationship between the knowledge, attitudes, and behavior of Methodist 2 High School students regarding PHBS.

Subjects and Methods

Participants

This study involved all students from all levels at SMA Methodist 2 Palembang. There were 216 respondents out of 242 who met the inclusion criteria and exclusion criteria. A total of 26 respondents were excluded because they did not answer the questionnaire completely.

Study design

This study used a cross-sectional study design and this study was conducted from January 2021 to February 2021. The sampling in this study used a purposive sampling technique and by calculating the unpaired categorical analytical study formula, the minimum required sample was 216 samples. This research was approved by the ethics committee of the Faculty of Medicine, Pelita Harapan University.

Research Instrument

Data were collected using several questionnaires that were distributed to respondents using a google form. The questionnaires contain questions and statements regarding knowledge, attitudes and behavior towards PHBS. In addition, there are also questionnaires containing socio-demographic data of the respondents (name, gender and grade) and questionnaires regarding PHBS facilities.

Statistical Analysis

Data analysis was carried out using Microsoft Excel and IBM SPSS Statistics 25. The data obtained were processed using Chi square to determine the relationship between knowledge and attitudes towards PHBS behavior in Methodist 2 Palembang High School students. It is said to be significant if the p value is <0.05 .

Results

Respondent Characteristic

Table 1. Respondent Characteristic (N=216)

Respondent Characteristic	Number of Participant	Percentage (%)
Gender		
Male	92	42.6%
Female	124	57.4%
Grade		
1 st grade	65	30.1%
2 nd grade	75	34.7%
3 rd grade	76	35.2%

Research on the knowledge, attitudes and behavior of clean and healthy living involved all students from all levels in Methodist 2 Palembang Highschool. There were 216 respondents who met the inclusion and exclusion criteria. Most of the respondents were women (57.4%) and the respondents were evenly distributed from 1st grade to 3rd grade.

Knowledge, Attitude and Behavior towards PHBS

Table 2. Knowledge, Attitude and Behavior towards PHBS

	Number of Participant	Percentage (%)
Knowledge*		
Cutoff with median value (7)		
Insufficient (<7)	0	0%
Sufficient (≥ 7)	216	100%
Cut off with average value (12,7)		
Insufficient (<12.7)	84	38.9%
Sufficient (≥ 12.7)	132	61.1%

Attitude**		
Insufficient (<57.6)	98	45.5%
Sufficient (≥57.6)	118	54.6%
Behavior***		
Cutoff with median value (8)		
Insufficient (< 8)	0	0%
Sufficient (≥ 8)	216	100%
Cutoff with average value (13,2)		
Insufficient (< 8)	114	52.8%
Sufficient (≥ 8)	102	42.7%

* Original cutoff for knowledge was 7 (median value). Score for knowledge (0-14). Average value for knowledge is (12.7)

** Attitudes are categorized into sufficient and insufficient using the average value (57.6)

*** Original cutoff for behavior was 8 (median value). Score for behavior (0-16). Average value for behavior is (13.2)

Initially the assessment of the questionnaire was divided into sufficient and insufficient knowledge of PHBS using the median value (7) as the cut-off point. It was found that all respondents had sufficient knowledge of PHBS (100%). Therefore, the cut value for knowledge is changed to the average value (12.7) so that in the Chi square calculation (the relationship between knowledge and behavior) there will be no cells with a value of 0. With knowledge, using the cut-off point of the average value (12.7) found that more than half of the respondents (61.1%) had sufficient knowledge of PHBS.

For the calculation of attitude assessment using the average value (57.6) as the cut-off point and it was found that the majority had a sufficient attitude towards PHBS (54.6%).

The initial behavioral assessment used the median value (8) as the cut-off point, and it was found that all respondents (100%) had sufficient PHBS behavior. Therefore, the cut-off point for PHBS behavior was changed to the average value (13.2) so that in the Chi square calculation there were no cells with a value of 0. With behavior, using the

mean value cut-off point (13.2) found that the majority of respondents had insufficient PHBS behavior (52.8%).

Facilities of PHBS

Methodist 2 Palembang High School has all the facilities that support the implementation of PHBS. The facilities in question are clean and healthy latrines, clean water and soap are always available at school toilets, smoking bans in schools, activities to eradicate mosquitoes, activities to clean the school environment, good waste disposal sites, scales are in good condition and functioning well in the school health unit.

Statistical Test Result

Table 3. Analysis of the relationship between PHBS knowledge and PHBS behavior (N=216)

Knowledge of PHBS*	PHBS Behavior**		P value	Ratio (OR)	CI (95%)
	Good (≥13,2) n (%)	Poor (<13,2) n (%)			
Sufficient (≥12,7)	64 (48,5%)	68 (51,5%)	0,744	1,139	0,658- 1,972
Insufficient (<12,7)	38 (45,2%)	46 (54,8%)			

* Sufficient and insufficient knowledge categories use the average value (12.7)

** Sufficient and insufficient behavior categories use the average value (13.2)

Analysis of the relationship between PHBS knowledge and PHBS behavior using Chi squared obtained a p value of 0.744. The p-value obtained is >0.05 so it can be said that there is no significant relationship between PHBS knowledge and PHBS behavior in Methodist 2 Palembang HighSchool students.

Tabel 4. Analysis of the relationship between PHBS attitude and PHBS behavior (N=216)

PHBS Attitude*	PHBS Behavior**		P value	Ratio (OR)	CI (95%)
	Good (≥13,2) n (%)	Poor (<13,2) n (%)			
Sufficient (≥57,6)	72 (61,0%)	46 (39,0%)	<0,001	3,548	2,103-6,254
Insufficient (<57,6)	30 (30,6%)	68 (69,4%)			

Analysis of the relationship between PHBS attitudes towards PHBS behavior using chi squares obtained a p value of <0.001. Because the p value <0.05, it can be stated that there is a significant relationship between PHBS attitudes towards PHBS behavior in Methodist 2 Palembang High School students. Students with insufficient PHBS attitudes have a 3.5 times risk of showing insufficient PHBS behavior compared to students who have sufficient attitudes of PHBS.

Discussion

Relationship between PHBS knowledge and PHBS behavior in Methodist 2 Palembang high school students

The results of the analysis of the relationship between PHBS knowledge and behavior towards PHBS in Methodist 2 Palembang High School students who used chi squared obtained a p value of 0.744. Because the p value > 0.05, it can be stated that there is no significant relationship between PHBS knowledge and behavior towards PHBS in Methodist 2 Palembang High School students.

This study is not in line with research conducted by Zubaidah in 2014.¹⁴ Zubaidah conducted a study entitled "The Relationship of Demographic Characteristics, Knowledge and Attitudes with PHBS of Depok City Elementary

School Students".¹⁴ Zubaidah's research stated that there was a significant relationship between PHBS knowledge and PHBS behavior.¹⁴ This research is also not in line with research conducted by Prautami in 2017. Prautami conducted a study entitled "The Relationship of Knowledge and Attitudes with Smoking Behavior in Adolescents at PGRI 2 Palembang High School." In his research, he found a significant relationship between PHBS knowledge and PHBS behavior.¹⁵

In this study, it was found that there was no significant relationship between PHBS knowledge and PHBS behavior. The reason for this is because behavior is not only influenced by knowledge, but also by attitudes.¹⁴ In other words, a behavior arises because of stimuli from inside and outside the body (knowledge/cognitive), but the behavior itself is also determined by the feelings towards the stimulus (attitude/affective).^{8,14,16}

In addition, the insignificant results in this study can also be influenced by the sample selection method. The sample selection method in this study is purposive sampling where the sampling is determined or adjusted to the research objectives so that the sample does not represent the general population. Meanwhile, in the research conducted by Zubaidah and Prautami, both of them used a sample selection method that could better represent the general population, namely simple random sampling.

Relationship between PHBS attitude and PHBS behavior in Methodist 2 Palembang high school students

In this study, it was found that the attitudes of Methodist 2 High School

students towards sufficient and insufficient PHBS were almost the same (sufficient attitude 54.6%, insufficient attitude (45.5%). The results of the analysis of the relationship between PHBS attitudes and behavior towards PHBS in students Methodist 2 Palembang High School which uses chi squared obtained p value of <0.001 . From the p value obtained, it can be said that there is a significant relationship between PHBS attitudes and behavior towards PHBS in Methodist 2 High School students. Based on the odds ratio value, students who have insufficient PHBS attitudes have a 3.5 times greater risk for insufficient PHBS behavior compared to students who have sufficient attitudes of PHBS.

This research is in line with research conducted by Zubaidah in 2014 with the title "Relationship of

Demographic Characteristics, Knowledge and Attitudes with PHBS of Depok City Elementary School Students".¹⁴ In his research, it was found that there was a significant relationship between PHBS attitudes and PHBS behavior. This study also in line with the research conducted by Fauziah in 2004 with the title "Factors Associated with Clean and Healthy Life Behavior in 2 Elementary Schools (With and Without the PHBS Program) at Pakjo Palembang Village." In his research, it was found that there was a significant relationship between PHBS attitudes towards PHBS behavior. The research conducted by Fauziah divided the categories of attitudes into negative and positive, the categories of behavior became poor and good, then from the research it was found that 21.9% of students who had positive attitudes with poor behavior and 78.1% of students with positive attitudes had good PHBS behavior.¹⁷

A similar study was also conducted by Prautami in 2017. Prautami conducted research related to one of the indicators of PHBS, namely smoking. The research entitled "The Relationship of Knowledge and Attitudes with Smoking Behavior in Adolescents at SMA PGRI 2 Palembang." The results of the study showed that there was a significant relationship between smoking attitudes and smoking behavior.¹⁵

This research is in line with several studies that have been conducted previously. Attitude itself is a predisposing factor in the occurrence of a behavior according to Green's theory in 1980 which was presented by Zubaidah in 2014.¹⁴ One of the three behavioral domains is affective where affective is focused on a feeling, emotion or can also be referred to as the level of acceptance or rejection. This affective itself is also often referred to as attitude. Zubaidah in 2014 also emphasized that the attitude involves thoughts, attention and other psychological matters or in other words the attitude is a collection of symptoms that respond to a stimulus or object.¹⁴

Conclusion

The conclusion of this study is:

1. Most students have sufficient PHBS knowledge (61.1%) and the rest have insufficient knowledge of PHBS (38.9%)
2. The majority of the students of SMA Methodist 2 Palembang (54.6%) have a sufficient attitude towards PHBS
3. More than half of the students (52.8%) have insufficient PHBS behavior and the rest have sufficient behavior of PHBS (42.7%)
4. There is no significant relationship between knowledge and PHBS behavior in Methodist 2 Palembang

High School students

5. There is a significant relationship between attitudes towards PHBS behavior in Methodist 2 Palembang High School students

Limitation

This study was conducted using a self-report questionnaire which could lead to a risk of bias. The bias could be due to the respondent in filling the questionnaires.

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