
Clean and Healthy Living Behavior Education and Anthropometric Examination at Kindergarten/Elementary School of Tunas Sebernaman

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Abstract:

Efforts to improve public health must begin at an early age to build and realize a better environmental health status, by creating awareness, ability, and habit of applying clean and healthy living behavior. Efforts are needed by educating from an early age to get used to clean and healthy living behavior, one of the efforts is to educate in the school environment, related to clean and healthy living behavior the school environment is the first step to empowering students, teachers, and the community living in the school environment to be able to carry out clean and healthy living behavior in realizing a clean and healthy school environment.

The Real Work Lecture (KKN) program was carried out in Deli-Serdang Regency, Kutalimbaru District, Pasar X Village, Hamlet I at Kindergarten / Elementary School of Tunas Sebernaman, we agreed with the principal and teaching staff at the elementary school to carry out two real work lecture programs, namely health education related to clean and healthy living behavior and anthropometric examination of students of Kindergarten / Elementary School Tunas Sebernaman as for the series of activities in the form of pre-tests, exposure to clean and healthy living behavior material, anthropometric examination, post-test.

Keywords: Anthropometric examination, clean and healthy living behavior education, elementary school, kindergarten

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Introduction

Health is a human right that needs to be protected and considered by the government, because health is one of the crucial indicators in assessing the welfare of a nation, in addition to economic and social factors. Recognition of this is regulated in the 1948 United Nations Declaration on Human Rights. Article 25 Paragraph (1) of the Declaration states that every individual has the right to a standard of living adequate for the health and well-being of himself and his family, which includes the right to food, clothing, housing, health care, and necessary social services. In addition, individuals also have the right to security in situations such as unemployment, illness, disability, widowhood or widower, reaching old age, or other circumstances that result in a lack of livelihood beyond their control.¹

This statement is stated in the 1945 Constitution (UUD) Article 28 H Paragraph 1, which emphasizes that every individual has the right to receive health services. In addition,

Law Number 36 of 2009 concerning Health also clearly regulates the rights and obligations of both the government and the community in fulfilling health aspects. Improving health is a crucial effort in national development, aiming to foster awareness, willingness, and ability of the community to live a healthy life. Thus, an optimal level of health can be achieved as one element of general welfare to achieve national goals. The target of this health development is the formation of the community's ability to live a healthy life, so efforts are needed to increase community access to quality health services at affordable prices.²

The implementation of health development is aimed at increasing awareness, intention, and ability of individuals to live a healthy life so that they can achieve an optimal level of public health. To realize this health development, the government and the community carry out a series of health efforts that include disease prevention, health promotion, treatment, and rehabilitation in an integrated, integrated, and sustainable manner. One strategy to achieve this goal is through education on Clean and Healthy Living Behavior (PHBS) in the family, school, and community environments.

Clean and Healthy Living Behavior is a collection of actions carried out with awareness obtained through a learning process so that individuals, families, groups, or communities can be independent in health aspects and actively participate in improving public health.² Schools function as educational institutions that are the focus of implementing Clean and Healthy Living Behaviors so that the implementation of these behaviors can be improved. This is based on various data showing that most diseases that are often experienced by school-age children (6-10 years) are closely related to PHBS. In addition, the lack of implementation of PHBS in the school environment can result in other negative impacts, such as discomfort in the learning atmosphere due to poor classroom cleanliness, decreased academic achievement and student learning motivation, and can damage the image of the school. Therefore, it is very important to provide an understanding of PHBS values from an early age. Elementary school is a crucial period for instilling the values of Clean and Healthy Living Behavior (PHBS) and has the potential to be an agent of change in promoting PHBS in the school, family, and community environments. This aims to produce quality human resources in the future. According to data, in 2010, the number of children in Indonesia was estimated to reach 64.85 million people, and is predicted to increase to 65.31 million in 2015. The proportion of children in the age category 0-14 years reached around 28%-34% of the total population of Indonesia, which last year was recorded at around 235 million people. The most effective channel for conducting early health socialization and practices in children is through educational institutions.³

PHBS is a collection of behaviors carried out based on individual awareness in an effort to prevent health problems. PHBS practices emerge from a learning process that allows individuals or families to overcome health problems independently and contribute to creating public health. PHBS policies are a crucial element in a region, functioning as an indicator of success in reducing the incidence of diseases caused by unhealthy behavior. The results of

the Clean and Healthy Living Behavior (PHBS) Assessment based on the 2013 Basic Health Research showed that 95.7% of children have brushed their teeth every day, but only 1.7% do it the right way. In addition, active tobacco consumption behavior among children reached 0.5%, while 0.9% smoked with irregular frequencies. Through an analysis of national trends, as many as 82.6% of the population have defecated in the toilet in the right way. However, only 47% of the Indonesian population wash their hands properly. As many as 26.1% of the population in Indonesia are classified as less active in their activities. PHBS figures from 2005 to 2015 showed an increasing trend, from 27% in 2005 to 36.3% in 2013, and 40% in 2015. Meanwhile, the national target for 2019 is expected to be that 80% of the Indonesian population can meet the criteria for good PHBS.⁴

An unhealthy lifestyle is one of the components that contribute to the emergence of direct factors causing stunting, such as nutritional deficiency and disease infection. Therefore, stunting prevention can be done by implementing Clean and Healthy Living Behavior (PHBS) as a step to prevent factors that cause stunting. PHBS, especially in school-age children, is one of the efforts made to improve health quality, to instill clean and healthy behavior habits as a prevention against infectious and non-infectious diseases. In the school environment, PHBS has eight indicators, namely: washing hands with running water and soap, consuming healthy food in the school canteen, using a clean and healthy toilet, exercising regularly and measured, eradicating mosquito larvae in schools, not smoking in schools, weighing and measuring height every six months, and disposing of garbage in its place.⁵

Based on the explanation above, the Real Work Lecture Activity in the form of PHBS education and anthropometric examination at Tunas Sebernaman Kutalimbaru Kindergarten/Elementary School is a very important program to carry out. This service aims to increase understanding and instill the urgency of implementing PHBS from an early age in students and to find out the nutritional status of students as an effort to prevent stunting in Pasar X Village, Kutalimbaru District. PHBS education activities and anthropometric examinations at Tunas Sebernaman Kutalimbaru Kindergarten/Elementary School are very important programs to carry out. This Real Work Lecture activity aims to increase understanding and instill the urgency of implementing PHBS from an early age in students and to find out the nutritional status of students as an effort to prevent stunting in Pasar X Village, Kutalimbaru District

Research Methodology

The real work lecture activities carried out consisted of 2 activities in the form of PHBS education, and anthropometric examinations which took place at Tunas Sebernaman Kindergarten/Elementary School, Deli Serdang Regency, Kutalimbaru District, Pasar X Village, Dusun I on September 2, 2024, from 09.00-12.00 WIB. The students who participated in the PHBS education and anthropometric examination were those who were in

grade IV of elementary school, with a total of 22 students. In the implementation of the real-work lecture activities for PHBS education and anthropometric examinations, we carried out concept formation, preparation, and other stages so that the real-work lecture activities could run well and in a structured manner. The stages of the real work lecture activities include.

A) Phase I Socialization Regarding 2024 INDEPENDENT KKN FK UMSU and Division of Small Groups

Socialization related to the 2024 MANDIRI KKN activities which were carried out online with a Zoom meeting attended by students of the Faculty of Medicine, University of Muhammadiyah North Sumatra, batch 2021, and several students of batch 2019, 2020, as well as the division of small groups into 21 groups with each group consisting of 10 students and 1 field supervisor (DPL).

B) Phase II Discussion with DPL Regarding the Implementation and Activities of KKN MANDIRI

First, the discussion was carried out online with a Zoom meeting without DPL. We discussed the structural arrangement of the group and the division of tasks or programs that would be carried out during the real work lecture activities, and then a few days later we held a discussion with DPL offline which was held directly at the location where the 2024 MANDIRI KKN activities were distributed together with village officials.

Stage III Discussion with DPL and Coordination with Schools Where KKN MANDIRI is Implemented

After the 2024 MANDIRI KKN release activity which took place at the sub-district office, we held a discussion with the DPL and village officials by explaining our intentions and objectives and determining the targets of the education program to be held, as well as submitting a letter of application for the activity and requesting permission related to the implementation of the MANDIRI KKN activity. And the next few we conducted a location survey of the Tunas Sebernaman Kindergarten/Elementary School, and explained the needs and purposes of our arrival, asking for permission and at the same time holding a discussion related to the UMSU FK MANDIRI KKN program and explaining several programs to the school including the PHBS education program and anthropometric examination. The implementation of the real work lecture activity was held on September 2, 2024, which was located in the Deli Serdang Regency area, Kutalimbaru District, Pasar X Village, Hamlet I in the Tunas Sebernaman Kindergarten/Elementary School environment.

After the data of 22 students from grade IV of Tunas Sebernaman Kindergarten/Elementary School were collected, a test was conducted using SPSS software using the paired sample t-test with the aim of determining the significance value of the results of the KKN program activities in the form of PHBS education before and after PHBS education was given based on the results of the pretest and posttest scores for grade IV students from Tunas Sebernaman Kindergarten/Elementary School. .

Results and Discussion

Clean and Healthy Living Behavior (PHBS) Education

PHBS education for grade IV students of Tunas Sebernaman Kindergarten/Elementary School is carried out with several program stages including preparation, implementation, and evaluation stages. For the first stage of preparation, several tools and materials are prepared for delivering PHBS education materials such as projectors, laptops, and educational banners. The implementation stage is in the form of delivering materials that begin with greetings and introductions from the KKN group and self-introduction of the PHBS education presenters, and then the presenters are assisted by other KKN participants to distribute pre-test papers before presenting the education material, then continued with the presentation of PHBS material on how to wash hands properly and correctly and explanations related to the impacts, benefits, and when is the right time to wash hands, the methods or techniques taught are 6 steps of washing hands according to the policies and recommendations of the World Health Organization (WHO). By using the singing method on educational media and memorizing the 6-step hand washing movements so that it is easy and can always be remembered by education participants. The final stage or evaluation is to look for indications of educational success by giving door prizes to those who are able and brave enough to recite the 6-step hand-washing movements using the song method that has been taught, door prizes are held for the reason of being a trigger for enthusiasm and, to arouse the competitive spirit of students, and ending with the implementation of a post-test for a series of evaluation stages and, at the same time, closing the series of PHBS education programs at Tunas Sebernaman Kindergarten/Elementary School.

Percentage of PHBS Education Participants

The education participants who participated in the clean and healthy living behavior education program were students in grade IV of Tunas Sebernaman Kindergarten/Elementary School. With the following details, the male education participants were 8 students (36%) and the female education participants were 14 students (64%), each of whom lived in Pasar X village, Kutalimbaru sub-district, who came from hamlets spread across Pasar X village.

Table 1. Percentage of PHBS Education Participants

Characteristics	Category	Amount	Percentage (%)
Gender	Man	8 people	36 %
	Woman	14 people	64 %
		22 people	100%

Analysis of Students' Pretest and Posttest Results

The results of the data analysis include the maximum value, minimum value, and mean value of understanding of grade IV students of Tunas Sebernaman Kindergarten/Elementary School between before and after the implementation of PHBS

education activities based on the pretest and posttest values presented in the following table and graph.

Table 2. Analysis of Students' Pretest and Posttest Results

	n	Min	Max	Mean	Std. Deviation
Pretest	22	10	90	66.81	19.36
Posttest	22	30	100	75.90	16.52

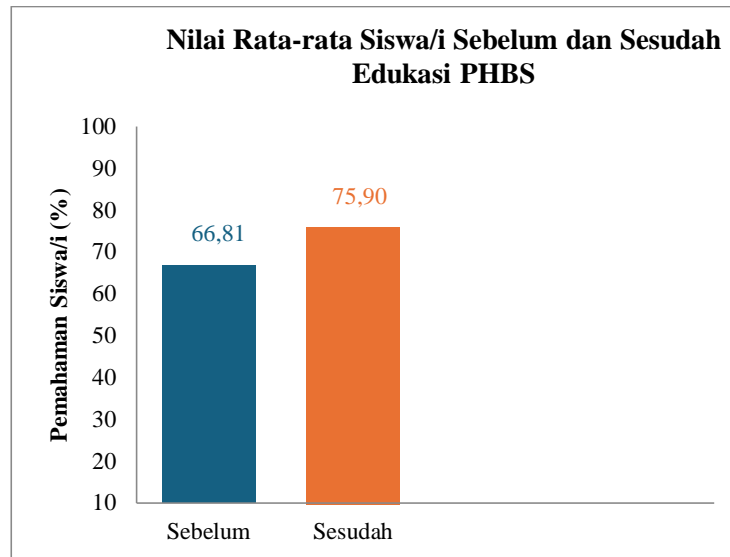


Figure 1. Pretest and Posttest Results Graph

Based on the graph above (Figure 1), it can be seen clearly that the PHBS education activities for grade IV students of Tunas Sebernaman Kindergarten/Elementary School have a positive impact on increasing students' understanding of clean and healthy living behavior. It can be observed together on the average number of students' understanding before being given PHBS education material with an average value of 66.81%, and the lowest value at 10 and the highest value at 90, after being given PHBS education there was an increase in the average value to 75.90%, with the lowest value of 30 and the highest value of 100. With an average difference before and after education of 9.09%. With an increase of 9.09%, the objective of implementing PHBS education activities for students at Tunas Sebernaman Kindergarten/Elementary School was declared to have been achieved. Meanwhile, according to the results of the T-Test, the following results were obtained.

Table 3. T-Test Results Based on Research Data

	n	Mean	Std.Deviation	95%CI		P
				Lower	Upper	
Pretest-posttest	22	-9.09091	9.21132	-13.17498	-5.00684	0.000

Based on the results of the t-test on the pretest and post-test values of grade IV students of Tunas Sebernaman Kindergarten/Elementary School who were given PHBS education. It can be seen that the probability value (significance) is 0.000 (<0.005) which means that there is a significant difference in values before and after the provision of PHBS education materials to grade IV students of Tunas Sebernaman Kindergarten/Elementary School. It can be concluded that there is an increase in the level of understanding of grade IV students of Tunas Sebernaman Kindergarten/Elementary School about clean and healthy living behavior (PHBS) after receiving PHBS-related education material conducted in this study. This is in line with previous research conducted by Yulia Sari et al.6 2024 for students of SDN 1 & 2 Plosorejo with an increase in the level of understanding of students of SDN 1 & 2 Plosorejo regarding PHBS after PHBS education was carried out.



Figure 2. PHBS Education Implementation Activities

Anthropometric Examination Activities

The anthropometric examination activity on grade IV students of Tunas Sebernaman Kindergarten/Elementary School was carried out after the clean and healthy living behavior (PHBS) education activity, with a total of 22 participants of Tunas Sebernaman Kindergarten/Elementary School with details of 8 male students and 14 female students. The purpose of implementing the anthropometric examination program was to analyze the nutritional status of grade IV students of Tunas Sebernaman Kindergarten/Elementary School, with two measurement indicators, namely height (TB) with a value of meters (m), and weight (BB) with a value of kilograms (kg).

Table 4. Distribution of Respondents Based on Age, Body Weight (BW), Height (TB), Gender

No	Variables	Characteristics	n	Percentage (%)
1	Gender	Man	8	36
		Woman	14	64
2	Age (Years)	8	1	5
		9	16	73
		10	5	22
3	Height (m)	<1.20	1	5
		1.20-1.40	20	90
		1.40>	1	5
4	Body Weight (kg)	<30	13	59
		30-40	7	32
		40>	2	9

Based on the table above, respondents are students of grade IV of Kindergarten/Elementary School Tunas Sebernaman who participated in the anthropometric examination activities based on (Table 4) which are male 8 students (36%), female students 14 students (64%) the number of female students is more than male students. Based on the age of students of grade IV of Kindergarten/Elementary School Tunas Sebernaman with the age of 8 years totaling 1 student (5%), with the age of 9 years totaling 16 (73%), with the age of 10 years totaling 5 students (22%), students with the age of 9 years totaling 16 students (73%) better than with the age of 8 years 1 student (5%), and the age of 10 years 5 students (22%). Based on height in meters (m), it was found that students of Kindergarten/Elementary School Tunas Sebernaman were 1 student (5%) with a height of <1.20 m, 20 students (90%) with a height of >1.40 m, 1 student (5%), with the largest number of students based on height in the range of 1.20-1.40 m with a total of 20 students (90%). Based on weight in kilograms (kg), students of grade IV of Kindergarten/Elementary School Tunas Sebernaman, 13 students (59%) with a weight in the range of 30-40 kg, 7 students (32%), 2 students (9%) with a weight of >40 kg, while the highest percentage was held by a weight value of <30 kg with a total of 13 students (59%). Measurement of weight (Kg) and height (m) was applied to obtain the Body Mass Index (BMI) value. The BMI value obtained can be used to assess the nutritional status of students in grade IV of Tunas Sebernaman Kindergarten/Elementary School. Based on the standards for assessing the nutritional status of children aged 6-18 years according to WHO (2007)8,9, and the nutritional status of grade IV students at Tunas Sebernaman Kindergarten/Elementary School is shown in the following table.

Table 5. Nutritional Status of Grade IV Students of Tunas Sebernaman Kindergarten/Elementary School

Class	Gender						Amount
	Man			Woman			
	Thin	Normal	Fat	Thin	Normal	Fat	
Grade IV Students	6	2	0	9	3	2	22
Amount	6	2	0	9	3	2	22
%	27%	9%	0%	41%	13%	9%	100%

Conclusion

The increase in the level of knowledge, understanding, and insight of health education participants with clean and healthy living behavior (PHBS) material at Tunas Sebernaman Kindergarten/Elementary School is very beneficial and is greatly felt by all education participants with this educational activity widening the gap to continue to cultivate clean and healthy living behavior from a young age. And the importance of the role of teachers and the community living in the school area to continue to monitor the sustainability of living behavior with clean and healthy habits, so that it does not just stop at that day. Based on the data processing that has been collected from respondents of PHBS activities related to anthropometric examinations with the aim of assessing the nutritional status of students at Tunas Sebernaman Kindergarten/Elementary School, it was found that there were nutritional status problems with anthropometric assessments based on height (TB) and weight (BB) with Body Mass Index (BMI) measurements of 15 students who experienced thin nutritional status problems with details of 6 male students (27%), and 9 female students (41%). Meanwhile, students with obesity nutritional status problems amounted to 2 students (9%) female gender only and were not found in male students for obesity nutritional status. Based on these findings, further identification is needed regarding the types and varieties of food consumed by students in the elementary school, with the hope that targeted educational efforts can be made about the importance of consuming food with balanced nutrition for school-age children, who are still in the growth phase.

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