

# Effect Health Education on Improvement Knowledge of Students Class III and IV About Hand Washing

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**Abstract—** Health problems that often arise in school-age children are behavioral disorders, one of which is hand washing behavior. Based on a preliminary study in the Work Area of the Sambi Community Health Center in Boyolali District, it was found that the incidence of diarrhea was one of the 10 biggest diseases of the other diseases, the number of cases of diarrhea in 2016 was 83 people, one of the causes was lack of hand washing. The purpose of this study was to determine the effect of health education on increasing the awareness of students in grades III and IV. Method used in this research is pre-experimental with one group pretest-posttest approach. Population in this study were all students of class III and IV at SDN Candan II, Sambi District, Boyolali Regency, amounting to 35 people. Sampling technique using a total sampling technique of 35 people. Analysis of the data used was the T-Test. Results showed that the knowledge of students about washing hands before being given the most health education was in the poor category of 19 people (54.3%), after being given the most health education in the sufficient category of 20 people (57.1%). Based on the test results show that the significant value obtained at 0,000, when compared with the value of 0.05, the sig value is greater than the value (0,000 <0.05), then  $H_0$  is rejected, which means that there is an influence of health education on increasing student knowledge about washing hands in SDN Candan II, Sambi District, Boyolali Regency. Health workers should improve their services more and provide counseling about good and proper hand washing especially to students, so that adolescents better understand and understand about how to wash hands properly and correctly.

**Keywords:** health education, improvement knowledge, hand washing

## I. INTRODUCTION

Health problems that often arise in school-age children are behavioral disorders, physiological development disorders to disabilities in learning and also general health problems [2]. Various kinds of problems that arise in school age children, but the problems that usually occur are general health problems. General health problems that occur in school-age children are usually related to personal and environmental hygiene such as good and correct tooth brushing, personal hygiene, and handwashing habits with soap. Many school-age children suffer from diarrhea because they don't wash their hands before and after eating. As a result, bacteria in the hands come into the body with food that is eaten and cause gastrointestinal infections such as diarrhea [15]. These

problems arise due to lack of knowledge and awareness of the importance of health, especially hand washing habits. Washing hands is one of the cheap and effective solutions in preventing infectious diseases. But until now these habits are often underestimated. Based on a WHO study washing hands using soap can reduce the incidence of diarrhea by 47%. Another study in Pakistan conducted by Luby, Agboatwalla, et al (2005), found that washing hands with soap reduced respiratory tract infections associated with pneumonia by more than 50%. Various types of diseases that can arise related to handwashing habits are diarrhea, respiratory infections, bird flu (H1N1), and intestinal worms [6]. Diseases that arise will affect the child's growth and development resulting in disrupted teaching and learning process. Government's effort in overcoming the problem of cleanliness is by issuing Minister of Health Decree Number 1193 / Menkes / SK / X / 2004 concerning the Vision of the Republic of Indonesia's Health Promotion is "Healthy Clean Living Behavior 2010" or "PHBS 2010". Clean and Healthy Life Behavior or PHBS consists of several indicators, especially PHBS school settings, namely washing hands with running water and using soap, consuming snacks in school stalls / canteens, using clean & healthy latrines, regular and measured exercise, eradicating mosquito larvae, do not smoke, weigh weight and measure height every month, and dispose of trash in its place [9]. According to data from the Boyolali District Health Office in 2016 the highest number of diarrhea events in all age groups was 26,162 people and in the 0 - <1 year age group as many as 2,714 people.

Based on a preliminary study in the working area of the Sambi Community Health Center in Boyolali District, it was found that the incidence of diarrhea was one of the 10 biggest diseases of the other diseases, the number of cases of diarrhea in 2016 was 83 people.

In fact, in March 2017 there were some students who experienced diarrhea caused by food and drinks at the school site. This is also due to the lack of knowledge and information in the form of health education about clean and healthy living behavior, one of which is about good and right hand washing behavior. Therefore there are still many students who do not understand the importance of applying clean and healthy living behaviors. So that the behavior of washing hands properly and properly can not be applied in their daily lives. The most recent data in April in a time period that is not the same as in 2017

there were 7 cases of diarrhea in SDN Candan II, the cases of diarrhea occurred in class 3 students as many as 4 people and grade 4 as many as 3 people. Based on the background above, researchers are interested in conducting research on "The Effect of Health Education on Increasing the Knowledge of Class III and IV Students About Hand Washing in SDN Candan II, Sambu District, Boyolali Regency in 2017".

**II. MATERIAL AND METHOD**

This type of research used in this study is a type of quasi-experimental research, this type of research aims to determine a symptom or influence that arises, as a result of the existence of certain treatments. The hallmark of this research is the existence of an experiment or trial. The experiment was in the form of treatment or intervention on a variable. From this treatment, it is expected that changes or influences on other variables will occur. Research design used was pre experimental using one group pretest-posttest type.

The population is the whole research object or the object in question is the study population [13]. The population in this study were all students of class III and IV at SDN Candan II, Sambu District, Boyolali Regency, amounting to 35 people, while the sample was the object of study and was considered to represent the entire population (Notoatmodjo, 2010). In taking this research sample used certain methods or techniques, so that the sample can represent the population [13]. The sampling technique in this study uses the Total Sampling technique, where the entire population is sampled with a total of 35 people.

**III. RESULTS**

1. Students' knowledge about washing hands before being given health education.

Frequency Distribution of Student Knowledge About Washing Hands Before Provided Health Education at SDN Candan II Sambu District Boyolali Regency in 2017.

Category	Frequency	Persentase
Good	5	14,3
Enough	11	31,4
Less	19	54,3
Amount	35	100

Based on the Table shows that the knowledge of students about washing their hands before being given health education in SDN Candan II, Sambu District, Boyolali Regency is in the less category, namely 19 people (54.3%).

2. Students' knowledge about washing hands after being given health education

Frequency Distribution of Students' Knowledge About Hand Washing After Being Given Health Education at SDN Candan II Sambu District Boyolali Regency in 2017.

Category	Frequency	Persentase
Good	14	40,0
Enough	20	57,1
Less	1	2,9
Amount	35	100

Based on the Table shows that the knowledge of students about washing their hands after being given health education in SDN Candan II, Sambu District, Boyolali Regency is in the sufficient category, namely 20 people (57.1%).

3. The results of research on the effect of health education on increasing knowledge about washing hands can be seen in the table below:

Knowledge before health education	Knowledge after health education		P value
	Amount		
	f	%	
Good	5	100	0,000
Enough	11	100	
Less	19	100	
Amount	35	100	

Based on statistical test results obtained a significant value obtained at 0.000. means that there is an effect of health education on increasing students' knowledge about washing hands in SDN Candan II, Sambu District, Boyolali Regency.

**IV. DISCUSSIONS**

Based on the results of the study showed that students' knowledge about washing their hands before being given health education was in the poor category. This is due to the lack of knowledge obtained by students about washing hands. Less of knowledge is caused by students not yet getting information in the form of health education about clean and healthy living behavior, one of which is about how to wash hands properly. This knowledge is obtained both from direct experience and through the experience of others.

Based on the results of the study showed that students' knowledge about washing their hands after being given health education was in the quite good category. An increase in students' knowledge about washing hands is due to the treatment given by researchers in the form of health education. Health education provided by researchers can increase students' knowledge about how to wash hands properly.

Hand washing is a process that mechanically removes dirt and debris from hand skin using ordinary soap and running water [6] and according to PHBS (Clean and Healthy Life Behavior) -UNPAD (Padjajaran University) Washing hands using soap (CTPS ) is a habit of cleaning hands from dirt and serves to kill germs that cause diseases that are detrimental to health.

Based on the results of the study showed that the knowledge of students after being given health education increased from less to sufficient and good as many as 26 people, and as many as 18 people from the category of being good enough. There is an influence of health education on increasing students' knowledge about hand washing in Candan II Elementary School, Sambu District, Boyolali Regency. This is caused by the existence of health education so that it can increase students' knowledge about washing hands.

This is in line with the opinion of Notoatmodjo (2010) which states that an increase in a person's knowledge can be obtained through information either through health education provided by health workers or conducted by peers, but also information

can be obtained through other media such as television, mass media and etcetera.

Increased student knowledge about hand washing caused by health education. Health education is an application of the concept of education in the field of health in terms of education, health education is a practical pedagogic or educational practice, therefore the concept of health education is the concept of education that is applied to the health sector. The basic concept of education is a learning process so that the process of growth, development or change towards more mature, good and more mature [13].

The purpose of health education is to give or change knowledge, understanding, opinions and concepts to change attitudes and perceptions, instill new behaviors or habits [13].

The influence of health education on students' knowledge about washing their hands, because health education is a very important factor to bring or change the knowledge of someone who did not know to know. This is consistent with the opinion of Notoatmodjo (2010) which states that knowledge is the result of knowing and this happens after people have sensed an object, in this case health education. So with health education at least students can better know and understand about hand washing.

The basic concept of education is a learning process which means that in education there is a process of growth, development, or change toward more mature, better and more mature individuals, groups or communities. Winkell (2002) in Notoatmodjo (2010) states that the assistance provided is in the form of assistance, which ensures that learning can be positive, thus supporting the increase in knowledge. Assistance is provided through pedagogical associations, namely associations that are educational in nature, so it is not just random association without purpose.

Furthermore Notoatmodjo (2010) explained that the purpose of health education is to give or change knowledge, understanding, opinions and concepts to change attitudes and perceptions, instill new behavior or habits.

Based on this it is clear, that with health education given to students about hand washing students' knowledge will increase. Most of human knowledge is gained through sight and hearing, only a little is obtained through smell, feeling and touch [13].

## V. CONCLUSIONS

Based on the results of research and discussion, it can be concluded as follows:

1. Students knowledge about washing their hands before being given health education at SDN Candan II, Sambu District, Boyolali Regency is in the poor category.
2. Students knowledge about washing their hands after being given health education at SDN Candan II, Sambu District, Boyolali Regency is in the sufficient category.

3. There is an influence of health education on increasing students knowledge about washing hands in SDN Candan II, Sambu District, Boyolali Regency.

## VI. SUGGESTIONS

The results of this study are expected to be input for service providers and health workers to further improve information and provision of knowledge about clean and healthy living behaviors in elementary school students, one of which is the importance of washing hands properly and correctly.

With this research, the agency is expected to be able to provide elementary students with information and knowledge about clean and healthy living behavior, as well as being a basis for thinking and implementing PHBS programs in schools.

It is expected that students can apply in their daily habits the importance of clean and healthy living behaviors, one of which is the importance of washing hands properly and correctly, so students are able to apply well in their daily lives and are not prone to contracting diseases, especially diarrheal diseases.

## REFERENCES

- [1] Ananto, Purnomo. 2006. *UKS : Usaha Kesehatan Sekolah dan Madrasah Ibtidaiyah*. Bandung: Yrama Widya.
- [2] Anugerah & Hendra, 2007. *Permasalahan Umum Kesehatan Anak Usia Sekolah*. <http://www.yawasan-amalia.com>. Diakses tanggal 15 April 2017.
- [3] Arikunto, 2005. *Prosedur Penelitian Suatu Pendekatan Praktik*. Rineka Cipta. Jakarta.
- [4] \_\_\_\_\_, 2010. *Prosedur Penelitian Suatu Pendekatan Praktik*. Edisi Revisi. Rineka Cipta. Jakarta.
- [5] Danuwirahadi, 2010. *Efektifitas metode expository teaching terhadap perilaku mencuci tangan dengan menggunakan sabun*. Tesis tidak diterbitkan. Fakultas Psikologi Universitas Katolik Soegijapranata Semarang.
- [6] Depkes RI, 2010. *Cuci Tangan Pakai Sabun Dapat Mencegah Berbagai Penyakit*. From <http://www.depkes.go.id>. Diakses 11 April 2017.
- [7] Depkes. 2007. *Buku Panduan Peringatan Hari Cuci Tangan Sedunia, Ketiga*. Jakarta.
- [8] Dinkes Kabupaten Boyolali. 2015. *Profil Kesehatan Kabupaten Boyolali*.
- [9] Dinkes Prop Jawa Barat. 2010. *Profil Kesehatan Jawa Barat*. Bandung.
- [10] Djauzi, S. 2008. *Raih Kembali Kesehatan Mencegah Berbagai Penyakit Hidup Sehat Untuk Keluarga*. Jakarta: Kompas.
- [11] Gobel, 2009. *Masalah Kesehatan Anak Usia Sekolah: Catatan Hari Anak Nasional 23 Juli*. Diakses pada tanggal 11 April 2017.
- [12] Notoatmodjo S, 2010. *Metodologi Penelitian untuk Kesehatan*. Rineka Cipta. Jakarta.
- [13] Notoatmodjo, S, 2010. *Ilmu Kesehatan Masyarakat*. Rineka Cipta. Jakarta.
- [14] Permata, 2010. *Pengetahuan, Sikap, dan Perilaku Anak Sekolah Tentang Cuci Tangan Sebagai Pencegahan Infeksi*. Skripsi Strata Satu. FKIK. Universitas Muhammadiyah Yogyakarta.
- [15] Proverawati, A., Rahmawati E., 2012. *Perilaku Hidup Bersih dan Sehat (PHBS)*. Yogyakarta: Nuha Medika. Pp 2-105.