

THE EFFECT OF HEALTH COUNSELING ON HANDWASHING TECHNIQUE IN PRIMARY SCHOOLS

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ABSTRACT

Hand hygiene must be considered because 98% of the spread of germs comes from hands. One easy way to sanitize your hands from germs is through the habit of washing hands properly. Primary School students aged 6-12 years, where the school is a place for students to gain main experiences. Health services and counseling for primary school age students aim to make every child has the awareness to have a clean and healthy lifestyle. The purpose of this research is to determine the effect of health education on hand washing techniques in primary school students. The type of this research is pre-experiment with one group pretest-posttest design. The study population was all students in grade IV and V State Primary School Gombang, Mlati, Sleman, Yogyakarta, with total sampling technique of 42 respondents. The research instrument used an observation sheet on 6 steps of hand washing with a total of 8 questions. Test data was analyzed using the Wilcoxon test the results of which obtained p-value of 0.001, which means that there is an effect of health education on hand washing techniques in students of State Primary School Gombang Mlati Sleman, Yogyakarta.

Keywords: hand washing; health education; school education

First Received	Revised	Accepted	
18 June 2020	18 August 2020	28 August 2020	
Final Proof Received		Published	
29 August 2020	31 August 2020		

How to cite (in APA style)

Marantika, A., & Dwihestie, L. (2020). The Effect of Health Counseling on Handwashing Technique in Primary Schools. *Indonesian Journal of Global Health Research*, 2(3), 217-224.

INTRODUCTION

Indonesia is a densely populated country. The Central Statistics Agency estimates that Indonesia's population in 2020 will reach 266.9 million, and around 66.05 million or 24.5% of which are children in the unproductive age (0-14 years). This poses challenges in the health sector. In Indonesia, indicators of the success of children's health status are assessed from the mortality rate, morbidity rate, and nutritional status of the child (Central Bureau of Statistics, 2013).

Children are the most important asset in a country, because children are the successor of the nation. Primary school-age children are children aged 6-12 years, so school is a place for children to gain valuable experiences. Child health services at primary school age aim that every child has the awareness and ability to have a clean, healthy lifestyle, as well as good social interaction skills so that children can learn, grow and develop in harmony in various aspects of life, and therefore, quality human resources are formed. Efforts to maintain children's health are in the form of activities carried out in an integrated and sustainable manner to maintain and improve the health status of children, both for disease prevention, disease treatment and health recovery by the central, regional and community governments (Permenkes RI, 2014).

Benefits Clean and Healthy Life Behavior (PHBS), the main thing is the realization of people who care about health and have the knowledge and willingness to adopt healthy living habits, both personal hygiene and the environment. Health promotion concept Clean and Healthy Living Behavior (PHBS) have 5 scopes, which are the scope of households, the scope of schools, the scope of workplaces, the scope of health facilities, and the scope of public places. The principle of preventing is better than curing is the basis for implementing clean and healthy living habits. (Health Promotion, 2016).

Health behavior problems at school-age children are often related to personal and environmental hygiene. The habit of washing hands with soap (CTPS) is an easy and simple effort, but has a major impact on the prevention of infectious diseases such as diarrhea and acute respiratory infections (ARI) which are often the cause of death in children. Schools are educational institutions that are the partners of the Government in promoting the CTPS program. Schools are expected to be able to provide infrastructure such as clean water and soap, as well as adequate amounts of hand washing facilities, keep the school environment clean and healthy, and provide trash bins according to the type of waste so that waste is easier to manage because it has been separated earlier. In addition, schools need to educate school members to adopt clean and healthy behaviors (Ministry of Health, 2015).

Hands are limbs that are often used to carry out daily activities including eating and drinking. Hands that are always clean will be free of germs and various diseases, especially infectious diseases. It is important to carry out hand hygiene education to create a healthy life, especially for children by starting since the school age group so that children are aware of and take to hand-washing with soap and clean running water. Based on a preliminary study, a phenomenon that occurs in State Primary School Gombang Mlati Sleman Yogyakarta, it is known that there are still students who have not implemented clean and healthy living habits in the school environment, such as during recess, in which students immediately consume food / snacks without washing their hands first. So, this study aims to determine the effect of health education on hand washing techniques in primary school students, used a pre-experiment design and a one group pretest-posttest design.

METHOD

This research used a pre-experiment design with a one group pretest-posttest design. The population of this study were all children in grade IV and V State Primary School Gombang, Mlati District, Sleman Yogyakarta, totaling 42 students. The sampling technique used total sampling. The research instrument used an observation sheet consisting of the correct hand washing steps with a total of 8 question items to measure students' ability to wash hands. The research instrument was not tested for validity and reliability since the researcher used an observation sheet on the 6 steps of hand washing technique according to the Healthy Living Society Movement (Germas) program of Indonesian Ministry of Health.

Univariate data was analyzed with frequency distribution and bivariate analysis was done using a non-parametric test, namely the Wilcoxon test because the results of the normality test indicated that the data is not normal. Prior to the study, the researcher had obtained a research permission from the health research ethics committee of 'Aisyiyah Yogyakarta University with number 1442 / KEP-UNISA / II / 2020.

RESULTS

Data analysis in this study is univariate and bivariate analysis. Univariate analysis includes respondents' characteristics based on gender and age. Table 1, it shows that the majority of students at State Primary School Gombang, Mlati District, Sleman Yogyakarta are male numbering 28 respondents (66.7%). The majority of students at State Primary School Gombang, Mlati District, Sleman Yogyakarta, according to age, are 11 years old with a total of 20 respondents (47.6%).

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	Table 1.			
Respondent characteristics based on gender and age (n=42)				
Gender	f	%		
Female	14	33.3		
Male	28	66.7		
Age				
9 years	3	7,1		
10 years	15	35.7		
11 years old	20	47.6		
12 years old	2	4,8		
13 years old	2	4,8		

Table 2.

Observation sheet answers to students of State Primary School (n=42)					
Statement		Pre-test		Post-test	
	Yes	No	Yes	No	
Wet hands with running water	34	8	37	5	
Pour enough hand washing soap	34	8	40	2	
Wiping and rubbing both palms gently in a circular	34	8	39	3	
direction					
Wiping and rubbing the back of the hands regularly	35	7	39	3	
Rub between your fingers until they are clean		7	39	3	
Clean the fingertips alternately in the interlocking position		6	38	4	
Rubbing rotate the thumbs alternately	28	14	38	4	
Place your fingertips on your palms then rub gently		14	39	4	

Hand washing techniques among students of State Primary School (n=42)				
Hand washing techniques	Pre-test		Post-test	
	f	%	f	%
Well	31	73.8	37	88.1
Enough	10	23.8	5	11.9
Less	1	2	0	0

Table	3.
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	Table 4.		
The data normality test of pre-test and post-test hand washing techniques (n=42)			
Group	Sig.	Information	
Pre-test	0,000	Abnormal	
Post-test	0,000	Abnormal	

	Table 5.			
Wilcoxon test on pre-test and post-test (n=42)				
Extension	Z	Р		
Pre-test Post-test	-3,186	0.001		

Table 2, it can be seen that there has been an increase in proper hand washing techniques for students at State Primary School Gombang Mlati Sleman Yogyakarta after health education, where the Y sign is the answer yes (correct) and T is the answer no (wrong).

Table 3, it describes that before being given health counseling on 6-steps of hand washing, there was 1 respondent (2%) who had a low level of hand washing techniques, 10 respondents (23.8%) who had sufficient level of hand washing techniques. After being given health education about the 6-step hand washing technique, 5 respondents had sufficient understanding of the techniques, while the remaining 37 understood it well.

Table 4, the results of the data normality test above, it is known that the significance value of the pre-test is 0,000 and the post-test is 0,000. It can be concluded that the pre-test and post-test data were not normally distributed because the value was <0.05. Therefore, because the data were not normally distributed, the statistical test of this study used a non-parametric test, namely the Wilcoxon test. The bivariate analysis test using the Wilcoxon test aims to determine the effect of health education on handwashing techniques of student.

Table 5, it is known that the non-parametric test results using the Wilcoxon test obtained a Z value of -3.186 and a p-value of 0.001 which means less than 0.05, it can be concluded that there is an effect of health education on the 6-step handwashing technique in State Primary School Gombang students. Mlati District, Sleman Regency Yogyakarta.

DISCUSSION

Respondent Characteristics

This study used a total sampling technique, by taking grade IV and V State Elementary School Gombang, Mlati District, Sleman Yogyakarta, a total of 42 respondents. The results of the characteristics of the respondents obtained in this study were gender and age. The age characteristics show an age range of 9-13 years. Age 9 to 13 years is the final age of childhood which is often referred to as elementary school age. Elementary school-age children are sensitive and easy to accept information and changes, making them easier to guide and direct (Notoatmodjo, 2014).

Elementary school-age children are a period where children begin to mature intellectually, morally, socially and emotionally. At this age children are more likely to be curious and want to learn about things that happen in everyday life (Yusuf and Sugandhi, 2011). Based on this, it is important and appropriate to provide education and instill clean and healthy living habits in order to maintain personal health and the environment, namely through the habit of washing hands properly.

In this study most of the respondents were male with as many as 28 students (66.7%) while the remaining14 students (33.3%) were female. Gender differences do not directly affect a person's knowledge and attitudes. However, according to Suryabrata (2010) women have better attention than men. Attention is a form of awareness and is an important thing that affects one's interest in carrying out an activity.

Handwashing Techniques for Students of State Primary School Before Health Counseling

The results showed that before counseling was given on the 6-step handwashing technique, 1 student (2%) has a low understanding thereof, while 10 students (23.8%) were satisfactory, and the remaining 31 students (73.8%) understood well. The fourth and fifth grade students of State Primary School Gombang Mlati Sleman Yogyakarta have not yet fully implemented a clean and healthy lifestyle in the school environment. This is shown during recess, in which students immediately consume food without washing their hands first. Even though the school has provided hand washing facilities, students are not yet aware of the importance of washing hands with soap to maintain personal health.

According to Wantiyah, et al. (2013) washing hands is often considered a trivial matter, when in fact, getting used to washing hands in daily activities can contribute to improving health status. Based on the existing phenomenon, school-age children are accustomed to paying less attention to hand hygiene, especially when in a school environment. Usually after finishing school activities such as sports, taking classes in class, or playing, children immediately consume the food they buy without washing their hands first. This habit can certainly affect children's personal health.

The results of the pretest showed that there were 8 respondents who did not use soap when washing their hands, even though the use of soap and running water is an important point in washing hands. According to the Indonesian Ministry of Health (2016) washing hands aims to clean germs that stick to the hands. Disease germs are very easily transmitted through the hands because the hand is a part of the body that is often used for activities. For example, when eating, germs will quickly enter the body where they can cause disease. Hands sometimes look clean to the naked eye but still contain germs. Washing your hands using soap and running water will clean germs. Without soap, germs will still be left on the hands (Health Promotion, 2016).

According to Aswadi, et al. (2017) school-age children fall into the category of vulnerable age group because at that age children are more susceptible to various types of infectious diseases. However, school-age children are still very sensitive to stimuli meaning that they are easy to be guided, directed and accustomed to doing good habits including healthy life habits.

This study selected primary school aged children respondents, namely grades IV and V because nurturing good habits must be started early. In accordance with the theory of Proverawati & Rahmawati (2016) which states that Handwashing with Soap (CTPS) is an easy and simple prevention effort that can be taught to children and the whole family from an early age. Thus, the pattern of Clean and Healthy Behavior (PHBS) is firmly embedded in the personal of children and other family members.

Handwashing Technique for Students of State Primary School After Health Counseling

The results showed that after being given health education about proper hand washing techniques with soap and running water, most of the respondents, as many as 37 (88.1%) of them, were in the good category. There were 5 students (11.9%) in enough category and 0 students in poor category. Based on research data, all students experienced improvements in proper hand washing techniques. This health education has been proven to be effective in educating students to adopt healthy living habits through washing hands with soap and running water in their daily activities, especially at school. According to Trijayanti (2019) health promotion is an effort that not only emphasizes changes in a person's knowledge, attitudes and actions, but also changes in the surrounding environment.

According to Sadiman (2012) counseling using video media will make it easier to convey messages to respondents, because the material is delivered in the form of moving images accompanied by sound. As a result, the senses of sight and hearing can capture the message optimally. In this study, the delivery of health education through video was of interest to respondents who were still in grade IV and V of primary school. When counseling took place, respondents felt interested and focused on the material presented.

Videos can provide information, explain processes, and teach skills. Video media can be used as a means of communication and education that is easily understood by the community, starting from children to adults (Prastowo, 2012). This is in accordance with the results of the study, namely the post-test data, which showed that all respondents experienced an increase in proper hand washing techniques.

The results showed that during the post-test most of the respondents had experienced changes in hand washing techniques, especially at the point of rubbing, rotating the thumbs alternately, then putting the fingertips on the palm of the hand then rubbing slowly. Initially respondents did not take this step, but after counseling on the 6 steps of washing hands properly, the respondents became aware that washing hands is not just wetting the palms of the hands.

The Effect of Health Education on Handwashing Techniques in Students of State Primary School

The effect of health education on handwashing techniques on students based on the results of data analysis using the Wilcoxon test obtained a p-value of 0.001 which is less than 0.05. So, it can be concluded that there is an effect of health education on hand

washing techniques for students of State Primary School Gombang Mlati Sleman Yogyakarta. This change is influenced by increased knowledge through health education. Thus, it can be concluded that respondents who have good knowledge about hand washing will tend to have good hand washing techniques as well. Conversely, respondents who lack knowledge about hand washing will tend to have poor hand washing techniques. This research is in line with the theory Notoatmodjo, S (2010) that the existence of good knowledge that a person has can affect his habits.

Research Setiawan, DI, et al, (2017) also stated that after conducting health education using video and singing media, it can be seen that most respondents have washed their hands properly in 6 steps. Through the media of video and singing, student motivation can be increased and make the hand washing steps that are taught easier to understand and memorize. Even though they are both improving, the skills of handwashing with soap (CTPS) for students who are counseled using video media are higher than singing media.

According to Johan, et al (2018) Health counseling is an effort to increase a person's knowledge and abilities through practical learning techniques or instructions that aim to change or influence human behavior individually, in groups, or in society to be more independent in achieving an optimal degree of health. According to Notoatmojo (2010), the expected results from health education are in the form of clean healthy behavior and improving personal health that is conducive. However, in everyday life, healthy living behavior is influenced by several factors including education, economy, environment, socio-culture and heredity.

CONCLUSION

Based on the results of research on the effect of health education on hand washing techniques for primary school students, it can be concluded that there is a significant effect of health education on hand washing techniques for students of State Primary School Gombang, Mlati District, Sleman Yogyakarta, which is significantly indicated by a p-value of 0.001.

REFERENCES

Aswadi *et al.* (2017) 'Gambaran Perilaku Hidup Bersih dan Sehat (PHBS) pada Siswa Siswi SDK Rita Pada Kecamatan Kota Komba Kabupaten Manggarai Timur Propinsi Nusa Tenggara Timur', *Public Health Science Journal*, 9(2), pp. 187–196. Available at: http://journal.uin-alauddin.ac.id/index.php/Al-Sihah/article/view/3775.

Badan Pusat Statistik. (2013). Proyeksi Penduduk Indonesia 2010-2035. Badan Pusat Statistik. https://www.bps.go.id/publication/2013/10/07/053d25bed2e4d62aab3346ec/proye ksi-penduduk-indonesia-2010-2035.html

Johan, H., Reni, D. P. and Noorbaya, S. (2018) 'Pengaruh Penyuluhan Media Audio Visual Video Terhadap Perilaku Cuci Tangan Pakai Sabun Pada Siswa Kelas Iii Di Sdn 027 Samarinda', *Husada Mahakam: Jurnal Kesehatan*, 4(6), p. 352. doi: 10.35963/hmjk.v4i6.138.

- Kementerian Kesehatan RI. (2015). 'Ayo Biasakan Cuci Tangan Pakai Sabun', *Kemenkes RI*, pp. 4–5. Available at: http://www.depkes.go.id/article/view/15101900001/ayo-biasakan-cuci-tanganpakai-sabun.html.
- Kementerian Kesehatan RI. (2016). 'Masyarakat Hidup Sehat Indonesia Kuat'. *Kementrian Kesehatan Direktorat Promosi Kesehatan dan Pemberdayaan Masyarakat*. http://promkes.kemkes.go.id/promosi-kesehatan
- Notoatmodjo, S. (2010). Ilmu Perilaku Kesehatan. Jakarta: Rineka Cipta.
- Notoatmodjo, S. (2014). Promosi Kesehatan dan Perilaku Kesehatan. Jakarta: Rineka Cipta.
- Permenkes RI. (2014). Peraturan Menteri Kesehatan Republik Indonesia No 25 Tahun 2014. *Menteri Kesehatan Republik Indonesia*.
- http://kesga.kemkes.go.id/images/pedoman/PMK%20No.%2025%20ttg%20Upaya%20 Kesehatan%20Anak.pdf
- Proverawati, A dan Rahmawati, E. (2016). *Perilaku Hidup Bersih & Sehat*. Yogyakarta: Nuha Medika.
- Sadiman, A.F dkk. (2012). Media Pendidikan, Pengertian Pengembangan dan Pemanfaatan. Jakarta: Raja Grafindo Persada.
- Setiawan, D. I., Asmarani, F. L. and Sari, D. R. (2017) 'Pengaruh Penyuluhan Kesehatan Menggunakan Media Video dan Bernyanyi terhadap Keterampilan Cuci Tangan Pakai Sabun (CTPS) Pada Siswa TK PKK Indriarini Yogyakarta', *Jurnal Keperawatan Respati Yogyakarta*, 4(September), pp. 232–237. Available at: http://nursingjurnal.respati.ac.id/index.php/JKRY.
- Suryabrata. S. (2010). Psikologi Pendidikan. Bandung: Raja Grafindo Persada.
- Trijayanti, D. A. K. L. (2019) 'Perilaku Tentang Cuci Tangan Pakai Sabun Di Madrasah Ibtidaiyah Taswirul Afkar', Jurnal PROMKES, 7(1), p. 46. doi: 10.20473/jpk.v7.i1.2019.46-55.
- Wantiyah, Purwandari, R. and Ardina, A. (2015) 'Hubungan Antara Perilaku Mencuci Tangan Dengan Insiden Diare Pada Anak Usia Sekolah Di Kabupaten Jember', *Jurnal Keperawatan*, 4(2), pp. 122–130. doi: 10.22219/jk.v4i2.2362.
- Yusuf S. dan Sugandhi N.M. (2011). Perkembangan Peserta Didik. Jakarta: Raja Grafindo Persada.