**The Effect Of Health Education On The Knowledge Of Hand Washing in The Children**

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**Abstract**

Disposable Hand Wash soap is one of the sanitary measures by cleaning hands and fingers using water and soap to be clean. This research aims to determine the effect of health education on the knowledge of hand washing in the Elementary School. The type of design used is Pre-experimentation with the design of One Group Pretest post-Test There are no comparative groups (controls). Population research is a class V Elementary School Kelapa Dua Kabupaten Tangerang. Sample of 23 non probability sampling students with consecutive sampling design. Data analysis techniques using the nonparametric test of Wilcoxon Match Paired Test. This research was conducted in May-June 2019. This study shows that the knowledge of low hand washing in Pretest was 23 respondents by 100%, while the knowledge of high hand washing test was 12 respondents by 56.5% and low 10 respondents by 43.5%. The results of this study are the influence between pretest and posttest knowledge of hand washing with efficacy results ρ = 0,000 <α = 0.05. The results indicate that there is an influence of health education on handwashing knowledge in Kelapa Dua Elementary School in Tangerang. The School to be able to implement health education in extracurricular activities.

Keywords: Health Education, Knowledge, Hand Washing

Introduction

Health education is a series of efforts for influencing other people, ranging from people, groups, families and communities to make healthy living behaviors (Khusnal, 2012). The learning process for health education has the same goal, namely occur of behavior change which is influence by many factors, including the target of education, educational actors, the educational process and expected behavior change. The role of health education is expect one of the people's behavior to healthy, such as washing hands with soap so that it can improve the health status of children (Setyadi, 2008). The habit of washing hands with soap is part of a healthy lifestyle (Wantiyah, 2013). Knowledge arises when information is give about Washing Hands with Soap is one of the sanitary measures by cleaning hands and fingers using water and soap to become clean and break the chain of germs (Hariyadi, 2015).

Hand washing behavior among Indonesians aged ≥10 years was 23.2% in 2007, in 2013 it was 47.0% and the 5 lowest provinces were West Sumatera (29.0%), Papua (29.5%), South Kalimantan (32.3%), North Sumatra (32.9%), Aceh (33.6%) (Ministry of Health Republic of Indonesia, 2014). 30% of Indonesia's population are children or around 73 million people. (Khusnal, 2012) The number of school-age children according to age (7-12 years) in 2017 in the health development program in Indonesia was 27 million people (Ministry of Health Republic of Indonesia, 2017). Population aged ≥10 years who behave correctly in washing hands according to regencies or cities, Banten Province shows 48.3% with the lowest proportion in Pandeglang  (28.5%), Serang City (41.2%), Tangerang City (41,3%), Tangerang (42,8%), Cilegon City (46,8%), Serang (52.7), Lebak (54.3%), South Tangerang  (78.5) (Riskesdas, 2013).

The benefits of washing hands with soap are one of the most effective ways to prevent diarrhea and respiratory infections, both of which are the main causes of death in children. As many as 3.5 million children worldwide die before reaching the age of five from diarrhea diseases and respiratory infections. Washing hands with soap can also prevent skin, eye infections, intestinal worms, SARS (Severe Acute Respiratory Syndrome) and bird flu (Ministry of Health Republic of Indonesia, 2014).

Health problems at school age can actually be prevented by washing hands with soap. The wrong behavior of washing hands with soap for school children is due to a lack of knowledge about washing hands with soap. Handling efforts made by health workers are to take an approach through health promotion or health education and education about important washing hands properly using soap to change the behavior of elementary school children (Hariyadi, 2015).

Handayani's research (2016) shows that the level of knowledge of elementary school children about washing hands before health education interventions are mostly good as many as 17 respondents (55%) and at least 1 respondent (3%) has less knowledge. So health education has an effect on knowledge of washing hands in elementary school children. and there is 1 student in the bad category (3.2%). So health education can affect the knowledge of washing hands with soap in school age children. Nurhanifah's research (2016) shows that after being given health education, (30.4%) the level of knowledge is good, (46.4%) the level of knowledge is enough and (23.2%) the level of knowledge is less so that there is an effect of health education on hand washing on knowledge. in elementary school children.

The results of interviews with the principal of Kelapa Dua Elementary School in Tangerang said that there had never been any research on health education on the knowledge of hand washing in elementary school students. The results of interviews with five elementary school students showed that the students did not know about proper hand washing. The purpose of this study was to find the effect of health education on hand washing knowledge at Kepala Dua Elementary School in Tangerang.

**Method**

This research is a type of pre-experiment with a One Group Pre-test Post-test design with no comparison (control) group, but at least the first observation (pre-test) has carry out which allows testing the changes that occur after the experiment (Notatmodjo, 2012). The effectiveness of the treatment assess by comparing the post-test scores with the pre-test scores. In this research design, one group was given health education about washing hands which done once for 45 minutes and the questionnaire conduct 2 times before and after the health education treatment about washing hands.

This research was conducted in May-June 2019 at the Kelapa Dua Elementary School in Tangerang. The population in this study were the fifth grade elementary school students amounting to 78 respondents. The research sample consisted of 23 respondents. The sampling technique in this study is non-probability sampling with consecutive sampling design. Data analysis technique used non-parametric test from Wilcoxon Match Paired Test. This research has conducted an ethical test at the University of Muhammadiyah Jakarta with number 035 / PE / KE / FKK-UMJ / VI / 2019.

**Result And Discussion**

**Tabel 1 Frequency Distribution of Respondents**

|  |  |  |
| --- | --- | --- |
| **Category** | **Frequency** | **Percentage (%)** |
| **Age** | | |
| 10 years | 6 | 26,1 |
| 11 years | 10 | 43,5 |
| 12 years | 5 | 21,7 |
| 13 years | 2 | 8,7 |
| **Knowledge of Hand Washing Pre Test** | | |
| Low | 23 | 100,0 |
| High | 0 | 0 |
| **Knowledge of Hand Washing Post Test** | | |
| Low | 10 | 43,5 |
| High | 13 | 56,5 |
| **Total** | **23** | **100,0** |

**Table 2 Wilcoxon Test Analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| **Knowledge of Hand Washing** | **Mean** | **SD** | **Wilcoxon Test** |
| Pre-test | 1,546 | 2,756 | 0,000 |
| Post-test | 1,772 | 2,507 |

Based on table 1 of the frequency distribution of respondents, it is found that 6 respondents (26.1%) age 10 years, 10 respondents (43.5%) 11 years old, 5 respondents (21.7%) 12 years old by 2 respondents (8.7%). 10 respondents (43.5%) in low knowledge category and 13 respondents (56.5%) in high knowledge category. Washing hands pre test with low category was 23 respondents (100.0%). Hand washing post test with low category was 10 respondents (43.5%) and high knowledge category was 13 respondents (56.5%).

In statistical testing using the Non Parametric Wilcoxon Match Pair Test, a P-value of 0.00 was obtained. To decide whether the hypothesis  accepted or rejected by comparing the value of the significant level of P value with an error level of 5% (0.05) if the P-value is greater than 0.05 then the hypothesis  rejected and if the P value is less than 0.05 then the hypothesis  accepted. The calculation results obtained a P-value of 0.00 <0.05, which means Ha  accepted, it can  concluded that there is a significant change before and after health education  carried out on the knowledge of hand washing in school children.

Sutanta's research (2010), states that taking into account students who are already in fourth, fifth, and sixth grades are more communicative and interactive compared to lower students with an age range of 10-14 years. Handayani's research, (2016) there is an effect of health education with knowledge about hand washing in Kragilan Elementary School children with a p value of 0.00 with a trust value (<0.05).  Knowledge of hand washing. occurs after people sense a certain object and knowledge is also a very important domain to influence a person's behavior, so the higher or more knowledge a person gets, the better the behavior shown by that person, the attitude shown is a positive attitude. Likewise, the knowledge of a child, the better his knowledge, the better his behavior, especially those related to clean and healthy living behavior (Notoatmodjo, 2010).

Knowledge is one of the factors that influence behavior about hand washing, hand washing is a health behavior (Kustanty, 2013). Green (2000) information of a person's behavior  influenced by three factors, one of which is driving reason (enabling reason). driving reason is a reason that makes it possible behavior. These factors can environmental physical, health facilities, or resources special support, and affordability health resources and facilities. Health facility  information of hand washing behavior Soap at school is certainly a good tool   provided and can used for implementing the behavior of washing hands with soap properly, including a place to wash hands running, soap and towels for drying wipes hand. Syahputri's research (2011) said that hand washing has not become a culture carried out by the Indonesian people at large. In everyday life there are still many people who wash their hands only with water when they want to eat and wash their hands with soap instead only after eating, even though hands are a medium that carries disease germs, so washing them before eating using soap is an effort to prevent disease itself. Washing hands with water alone is more commonly done by the community but this is proven to lacking effective when compared to washing hands with soap.

Health education aims to change unhealthy behavior into healthy which means that it can change the knowledge of respondents who are not good enough to good (Effendy, 2012). According to Edyati (2014) in his research that changes in knowledge and attitudes or changes in behavior  influenced by the media in counseling.  Existence of the media in the counseling can affect knowledge, attitudes which in turn can affect the practice of hand washing itself. In this study, health education  carried out using audio-visual media in the form of providing material through Powerpoint, than students shown a video on how to wash their hands properly, then researchers practiced how to wash their hands after being given leaflets. At the age of children to convey messages requires the right media because children like to imagine, one of the right media is audiovisual or video media (Prastowo, 2012).

The selection and use of media tools is one of the important components  carried out, with the aim of helping the use of the senses as much as possible (Kemenkes, 2014). Bowen's research (2007), proves that health education with campaigns is effective in reducing respiratory tract infections and respiratory infections attendance due to illness. Research by Curtis (2001) proves that health education about hygiene can change behavior to healthy. Elementary school children are a golden period in instilling knowledge and clean and healthy living behavior. At this stage, the child is very sensitive to the stimulus so that it is easy to guided, directed and instilled good habits because the child feels there is a period of growth and development (Ony, 2010). Therefore, at this stage children are very proper to instilled in good habits, one of which is by providing health education.

**Conclusion**

The 23 respondents showing the frequency distribution of the level of knowledge of hand washing before treatment there is a low-level of knowledge of hand washing as many as 23 people (100%). the level of knowledge of hand washing after treatment there is a low-level of knowledge of hand washing as many as 10 (43.5%), while those who experience high knowledge are 13 (56.5%).

Non-Parametric Wilcoxon Match Pair Test results obtained P value = 0.01. So there is a significant difference between the pre-test and post-test of health education because the value is <0.05, and it can  concluded that there is an effect of health education on knowledge of hand washing in public elementary school children.

This research  expected for schools to able to apply health education in extracurricular such as, school health efforts, as well as the benefits of health education to increase students' knowledge about  importance of washing hands before and after eating, playing, after handling money and others. Can increase awareness and motivate of health workers to improve health education or counseling about hand washing for children and families.

**References**

Arikunto, S. Prosedur Penelitian Pendekatan Praktik. Jakarta: Rineka Cipta. 2010.

Aisyah, T. (2010). Pengaruh Pemberian Paket Pendidikan Kesehatan Perawatan Ibu Nifas (PK-PIN) yang Dimodifikasi Terhadap Pengetahuan, Sikap, dan Prilaku Ibu Postpartum Primipara Dalam Merawat Diri di Palembang. Universitas Indonesia. 2010.

Amalia, F. Yuk Dukung Hari Cuci Tangan Pakai Sabun Sedunia. 2009. <http://lifestyle.okezone.com>

Dalami., Ernawati. Etika Keperawatan. Jakarta: Trans Info Media. 2010.

Dahlan, P.D.M.D. Psikologi Perkembangan Anak dan Remaja. Bandung: PT. Remaja Rosdakarya. 2014.

Desmita. Psikologi Perkembangan Peserta Didik. Bandung: PT Remaja Rosdakarya. 2009.

Dharma, K.K. Metode Penelitian Keperawatan: Panduan Melaksanakan dan Menerapkan Hasil Penelitian. Jakarta : Trans Info Media. 2011.

Donsu, J, D.T. Metodologi Keperawatan. Yogyakarta: Pt. Pustaka Baru. 2016.

Edyati. Pengaruh Penyuluhan Kesehatan dengan Media Video Terhadap Pengetahuan dan Sikap Personal Hygiene Siswa SD Negeri 1 Kepek Pengasih Kulon Progo. 2014.

Effendi, N. Dasar-Dasar Keperawatan Kesehatan Masyarakat (Ed.2). Jakarta: EGC. 2012.

Gunarsa, S. Seri Psikologi : psikologi perkembangan. PT BPK Gunung Mulia. 2010.

Green, L.W. Kreuter, M.W. Health Promotion Planning an Educational and Environmental Approch; Second Edition, Mayfield Publishing Company. Houston. 2000.

Handayani. Pengaruh Pendidikan Kesehatan Dengan Pengetahuan Tentang Cuci Tangan Pada Anak Sd Kragilan Mojolaban Sukoharjo. Maternal Vol.I No. 1Oktober 2016. 2016.

Irwanto. Psikologi Umum. Jakarta: PT. Prenhallindo. 2002.

Kementrian Kesehatan RI. Peraturan Menteri Kesehatan Republik Indonesia Nomor 3 Tahun 2014 tentang Sanitasi Total Berbasis Masyarakat, Dirjen P2PL. 2014.

Kementrian Kesehatan RI. Pusat Data Informasi. Jakarta. 2014.

Kementrian Kesehatan RI. Perilaku Mencuci Tangan Pakai Sabun di Indonesia. Jakarta. 2014.

Kementrian Kesehatan RI. Hari Cuci Tangan Pakai Sabun. Jakarta. 2014.

Kementrian Kesehatan RI. Situasi Diare Di Indonesia. Jakarta. 2011.

Khusnal. Pengaruh Pendidikan Kesehatan Terhadap Prilaku Cuci Tangan Pakai Sabun Pada Anak Usia Sekolah Di SD 2 Jambidan Banguntapan Bantul.Bantul. 2012.

Kustanty, N. Karakteristik Keluarga tentang Perilaku Hidup Bersih dan Sehat (PHBS) pada Tatanan Rumah tangga di Desa Karangasem. Jurnal gaster, Vol.8, No. 2. 2013.

Maryunani, A. Prilaku Hidup Bersih Dan Sehat (PHBS), Jakarta: TIM. 2013.

Notoatmodjo, S. Metodologi Penelitian Kesehatan. Jakarta: PT Rineka Cipta. 2010.

Notoatmodjo, S. Sikap dan Prilaku Kesehatan, Jakarta: PT Rineka Cipta. 2010.

Notoatmodjo S. Promosi Kesehatan dan Prilaku Kesehatan. Jakarta: PT Rineka Cipta. 2012.

Nurhanifah, A. D. Pengaruh Pendidikan Kesehatan Tentang Cuci Tangan Terhadap Pengetahuan Pada Anak Sd Kelas III Di SDN Hegarmanah Jatinangor. 2016.

Nuryanti, L. Psikologi Anak. Jakarta: PT Indeks. 2008.

Nursalam., Efendi, F. Pendidikan Dalam Keperawatan. Jakarta:Salemba Medika. 2008.

Nursalam. Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan. Jakarta: Salemba Medika. 2008.

Ony, L. Praktik Hidup Bersih dan Sehat (PHBS) pada peserta pendidikan anak usia dini (PAUD) di Kecamatan Koja Jakarta Utara. Jakarta : UHAMKA. 2010

Priyoto. Perubahan Dalam Perilaku Kesehatan. Yogyakarta: Graha Ilmu. 2015.

Purwandari. Hubungan Antara Perilaku Mencuci Tangan Dengan Insiden Diare Pada Anak Usia Sekolah Di Kabupaten Jember. Jurnal Keperawatan, ISSN: 2086-3071. Volume 4, Nomor 2. 2013.

Rahman, A. A. Psikologi Sosial: Integrasi Pengetahuan Wahyu danPengetahuan Empirik. Jakarta: Rajawali Pers. 2013

Riskesdas. Provinsi Banten. 2013.

Setiadi, S., Dermawan, A.C. Proses pembelajaran dalam pendidikan kesehatan. Jakarta: Trans Info Media. 2008.

Sunaryo. Psikologi untuk keperawatan. Jakarta: EGC. 2004.

Sugiyono. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Afabeta. 2011.

Sugiyono. Metode Penelitian Administrasi. Cetakan ke 20, Bandung: Alfabeta. 2012.

Sugiyono. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta. 2013.

Sutanta. Tingkat Pengetahuan Berhubungan dengan Sikap Cuci Tangan Bersih Pakai Sabun Sebelum dan Setelah Makan pada Siswa SD N Ngebel Tamantirta, Kasihan, Bantul, Yogyakarta. Khoiruddin, Kirnantoro, Sutanta, 2015. JNKI, Vol. 3, No. 3, Tahun 2015, 176-180.

Syahputri. Hubungan Perilaku Hidup Bersih dan Sehat Dengan Kejadian Diare Pada Balita Usia 1-3 tahun. 2011.

Wantiyah. Hubungan Antara Perilaku Mencuci Tangan Dengan Insiden Diare Pada Anak Usia Sekolah Di Kabupaten Jember. Jember. Volume 4, Nomor 2 Versi online n/ URL: <http://ejournal.umm.ac.id/index.php/keperawatan/article/view/2362>. 2013.

Wawan, A., Dewi, M. Pengetahuan, Sikap dan Perilaku Manusia.Yogyakarta: Nuha Medika. 2011.