



Plagiarism Checker X Originality Report

Similarity Found: 30%

Date: Friday, July 23, 2021

Statistics: 1389 words Plagiarized / 4610 Total words

Remarks: Medium Plagiarism Detected - Your Document needs Selective Improvement.

Belitung Nursing Journal Purba, E. R. V., Lusmilasari, L., & Hastuti, J. (2020). Belitung Nursing Journal, x(x), xxx -xxx <https://belitungraya.org/BRP/index.php/bnj/index>
ORIGINAL RESEARCH SCHOOL HEALTH PROMOTION: A QUASI-EXPERIMENTAL STUDY ON CLEAN AND HEALTHY LIVING BEHAVIOR AMONG ELEMENTARY STUDENTS IN JAYAPURA, PAPUA, INDONESIA Ellen Rosawita Veronica Purba^{1*}, Lely Lusmilasari², Janatin Hastuti³ ¹ Department of Nursing, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia ² Department of Child and Maternal Nursing, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia ³ Department of Health Nutrition Science, Faculty of Medicine, Public Health, and Nursing, Yogyakarta, Indonesia Corresponding author: Ellen Rosawita Veronica Purba, S.Kep., Ns Gedung Ismangoen, FK -KMK UGM, Jl. Farmako, Sekip Utara, Yogyakarta 55281 Email: ellen.purba5@gmail.com Mobile: 081344135683 Article Info: Received: 26 March 2020 Revised: 28 April 2020 & 16 November 2020 Accepted: 18 November 2020 DOI: <https://doi.org/10.33546/bnj>.

781 Abstract Background: The Indonesian government has launched a clean and healthy living behavior program as one of the efforts for school health promotion. However, the healthy behaviors of the elementary students are considered low. Objectives: This study aimed to examine the effect of a audiovisual-based education on the knowledge and attitudes of clean and healthy behavior in elementary students. Methods: This was a quasi-experimental study with a pretest-posttest comparison group design conducted from 1 October to 17 October 2018.

A total sample of 272 students was selected using purposive sampling, with 136 assigned in an experimental group (audiovisual group) and a comparison group (poster only group). Knowledge and attitudes of clean and healthy living behavior were

measured using validated questionnaires. Data were analyzed using a paired t-test and independent t-test. Results: There was a significant effect of the intervention s given in the experimental and comparison group on knowledge and attitude of clean and healthy living behavior ($p < 0.05$).

However, the experimental group showed a higher mean score compared to the comparison group in knowledge and attitudes, which indicated that the use of audiovisual-based education was more effective than the use of poster alone in improving the knowledge and attitudes of clean and healthy living behavior. Conclusion: The students who received audiovisual-based education had higher knowledge and attitudes of clean and healthy living behavior than those who only received poster-based education. This study provides input for pediatric and community nurses to provide better health education for the community, specifically for school health promotion.

KEYWORDS health education; health behavior; knowledge; attitudes; students ; Indonesia; nursing © 2020 The Author(s). This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License which allows others to remix, tweak, and build upon the work non-commercially as long as the original work is properly cited. The new creations are not necessarily licensed under the identical terms . ISSN: 2477-4073 BACKGROUND Clean and healthy living behavior, or called *Perilaku Hidup Bersih dan Sehat* (PHBS), is a set of actions that make a person or family able to help themselves maintain their health (Proverawati & Rahmawati, 2016).

Inappropriate PHBS can cause diarrhea and other health problems (Nazliansyah et al., 2016). Besides, according to Danari et al. (2013) and Koem (2015), lack of physical activity, lack of consuming fruits and vegetables, excessive food portions, and fast food intake in children result in overweight or obesity. PHBS is one of the programs conducted by the Indonesian government for health promotion.

However, based on the Basic Health Research of Ministry of Health of the Republic of Indonesia (2013), elementary children who performed PHBS were low, such as correct handwashing with soap was 47%, consuming risky foods once per day (sweet foods 53.1%, salty 26.2%, fatty 40.7%, burned 4.4%, preserved animals 4.3%, flavoring 77.3%, coffee 29.3%, and caffeine other than coffee 5.6%), and doing physical activity gratified as active was 73.9% and less active was 26.1%. The acceptable standard results of the PHBS criteria are at 32.3%, with the highest proportion of DKI Jakarta (56.8%) and the lowest in Papua (16.4%).

Data from Jayapura City Central Statistics Agency (2013) show that the implementation

of PHBS in the Elementary School of Inpres Bertingkat Perumnas 1 Waena was still not optimal. Of 564 existing students, 300 students (53.1%) lacked an understanding of the importance of handwashing correctly and adequately, and 264 students (46.9%) did not do hand washing correctly. There was a lack of students' understanding in choosing snacks at school and a lack of active students in physical activity, indicating poor knowledge. Purba, E. R. V., Lusmilasari, L., Hastuti, J.

(2020) Belitung Nursing Journal Knowledge is the result of knowing, which occurs after sensing the object, and is influenced by the intensity of the attention of perception because of understanding (Notoatmodjo, 2010; Tuyen, 2018). Yulianti (2015) found 33 of 64 students had insufficient knowledge about PHBS (51.6%). Based on the PHBS indicators, 24 students (37.5%) did not do hand washing correctly, 30 students (46.9%) did not consume healthy snacks in the school cafeteria, and 30 students (46.9%) did not do regular physical activities. A similar study conducted by Lina (2016) in the Kuranji Padang sub-district that the students had the lowest knowledge of 56.3%.

The results of a preliminary study in 1,169 students at Elementary School of Inpres Bertingkat and Elementary School of Inpres 5.81 Perumnas 1 Waena showed that the implementation of the school health unit (called unit kesehatan sekolah - UKS) was still not optimal. As seen from the availability of facilities to wash hands (9 units), most students did not use them properly. From the results of the interviews with the second-grade teachers, it was indicated that among 154 grade IV and V students, only 60 students (39%) did not receive information about handwashing correctly, 75 students (49%) consumed unhealthy snacks outside of school, and 19 students (12%) did not do physical activities every day. This result shows the need for students' understanding of clean and healthy behavior. One factor affecting children's knowledge is attitude (Notoatmodjo, 2010; Sunaryo et al.,

2020). Attitude is the result of object evaluation, expressed in cognitive, affective, and individual behavior or responses obtained from the learning process towards various attributes related to the object (Notoatmodjo, 2010). Research conducted by Lina (2016) shows that the PHBS indicators of students who did not choose healthy snacks in school canteens were 100%. Thus, efforts to improve knowledge and attitudes are needed, one of which is by providing health education. Health education is a form of business planned to improve individual or community health through mentoring, learning, and training activities to improve knowledge and attitudes physically, socially, and environmentally (Efendi & Makhfudli, 2009; Maulana, 2009; World Health Organization, n.d.). The more information that is known, the higher the ability of students to behave healthy lives.

The roles of nurses should be implemented as educators, role models, and at the same time as facilitators in the delivery of education. Vio et al. (2014) states that students' knowledge and attitudes can be increased after given information. Also, Amaya-Castellanos et al. (2015) revealed that educational media is used to improve students' knowledge and attitudes in doing physical activities and choosing foods that do not cause obesity. One form of education that can be used is through audiovisual media. Audiovisual media is considered effective in increasing knowledge and attitudes (Brugués et al., 2016).

Audiovisual media in the delivery of PHBS education in the form of videos can present easily understood information. Simultaneously, the poster is a precise visual combination and draws one's attention to act from what is seen (Troseth & Strouse, 2017). Therefore, this study aimed to determine the effect of health education using audiovisuals (videos and posters) on the knowledge and attitudes of PHBS in elementary school students in Jayapura, Papua, Indonesia.

METHODS Study Design This was quasi-experimental design research with pretest-posttest with a comparison group design. Respondents The respondents in this study were students in grades 4 and 5 from two elementary schools in Waena Inpres State Elementary School, including Elementary School of Inpres Bertingkat Perumnas 1 Waena as an experimental group and Elementary School of Inpres 5.81 Perumnas 1 Waena as a control group. There were 272 students selected using purposive sampling, which 136 students assigned in each group.

The inclusion criteria of the respondent were all students in grades 4 and 5, willing to become a respondent, and could write and read fluently. The exclusion criteria were students who did not attend school at the time of the research data collection.

Instrument The instrument used in this study was questionnaires of knowledge and attitudes of students about PHBS at schools, modified from Listyowati (2012) and Proverawati and Rahmawati (2016), and the Ministry of Health of the Republic of Indonesia (2011). The knowledge questionnaire consisted of 20 questions in the form of multiple check questions (MCQ), using the Guttman scale in the form of right and wrong choices.

The highest value of the total answers is 20, with a range of scores from 0 to 20. Knowledge assessment is said to be "good" if the value of the knowledge score is \geq mean and student knowledge is "lacking" if the value of the knowledge score is $<$ mean. The questionnaire consisted of four domains, namely PHBS at school (definition, benefits, training targets), washing hands with soap (definition, benefits, right time, how to wash hands properly), consuming healthy snacks (definition of healthy

snacks, causes of consumption of snacks unhealthy, the definition of balanced nutritious food), and perform daily physical activity (definition, benefits, kinds of physical activity, advantages of doing the physical activity).

Person Product Moment test and Cronbach's alpha were used for the validity and reliability of the questionnaire. The results of the validity test showed that the calculated r-value of each item statement was above 0.361, and the Cronbach's alpha value was 0.88. The attitude questionnaire consisted of 15 questions using the Likert scale. Positive statements used favorable answers (1=strongly disagree, 2= disagree, 3= agree, 4= agree) while negative statements used unfavorable responses (4= strongly disagree, 3= disagree, 2= agree, 1= agree), with a range of attitude score values 0 - 60.

Attitude assessment is said to be "positive" if the value of the attitude of students is \geq mean, while attitude is said to be "negative" if the value of the attitude score of students is $<$ mean. The questionnaire consisted of the same domains like the knowledge questionnaire. The questionnaire was valid with the r-value of each statement item was above 0.361 and reliable with the Cronbach alpha value was 0.89. Intervention The intervention was carried out in the experimental group by providing audiovisual-based education using video and posters about clean and healthy behavior (PHBS) for 45 minutes after the pretest.

The health education was done at a different time from the agreement with the control and experimental groups. The video's duration was 4 Purba, E. R. V., Lusmilasari, L., Hastuti, J. (2020) Belitung Nursing Journal minutes 57 seconds, for 2 x 5 minutes with the topics of PHBS materials (handwashing correctly, choosing healthy snacks, and doing physical activities at school s). The use of poster media for health education was implemented for 40 minutes. The respondents were asked to study independently for ten days, and the poster was posted in each class.

The comparison group was given only poster -based education about PHBS with the topics including handwashing correctly, choosing healthy snacks, and doing physical activities at school. They were also asked to learn independently for ten days. Data Collection Data were collected from 1 October 1 to 17 October 2018 by researchers and six research assistants. The research assistants were diploma nursing students. Their roles included distributing questionnaires, assisting in filling out questionnaires, and checking the completeness of the respondents' answers during data collection.

The pretest was done one day before the intervention, while the posttest was done ten days after the intervention. Data Analysis Univariate analysis was used on demographic characteristics variable to describe its frequency distribution and proportions such as

student age, sex, father and mother education, occupation, ethnicity , and information exposure. As data were normally distributed (>.05 using Kolmogorov Smirno v), Paired sample t-test and independent-sample t- test were used for data analysis.

Ethical Consideration The research was conducted after receiving an approval letter from the Ethics Committee of the Biomedical Research Ethics Committee, Medical Faculty, Universitas Gadjah Mada (approval Ref: KE / FK / 1041 / EC / 2018 dated 26 September 2018). Each respondent signed informed consent before data collection. Before signing the informed consent, the researchers first explained the purpose of the study and the confidentiality of the data . **RESULTS** Characteristics of the Respondents The majority of the respondents in the experiment and comparison groups were females, and their parents had higher educations. The father’s job was mostly in non-public sectors, and the mother’s job was a housewife.

The ethnics of being Papua or non-Papua was slightly the same. Most of the respondents had information exposure about PHBS. Table 1 Characteristics of the Respondents (N= 272) Characteristics Category Group Comparison (n =136) Experiment (n =136) f % f % Early school age 7 – 9 years old 24 17.6 27 19.8 Advanced school age 10-13 years old 112 82.3 109 80.1 Sex Male 58 42.6 62 45.6 Female 78 57.4 74 54.4 Father’s education Elementary school 7 5.1 12 8.8 Secondary school 52 38.2 51 37.5 Higher education 77 56.6 73 53.7 Mother’s education Elementary school 11 8.1 15 11.0 Secondary school 63 46.3 62 45.6

Higher education 62 45.6 59 43.4 Father’s job Jobless 9 6.6 9 6.6 Non-public servant 81 59.6 92 67.6 Public servant 46 33.8 35 25.7 Mother’s job Housewife 77 56.6 83 61 Non-public servant 31 22.8 28 20.6 Public servant 28 20.6 25 18.4 Ethnic Papua 58 42.6 61 44.9 Non-Papua 78 57.4 75 55.1 Information exposure Heard about PHBS Never 8 5.9 9 6.6 Ever 128 94.1 127 93.4 Counseling about PHBS Never 21 15.4 17 12.5 Ever 115 84.6 119 87.5 Taught how to wash hand with soap properly Never 8 5.9 9 6.6 Ever 128 94.1 127 93.4 Taught how to choose a healthy snack Never 9 6.6 4 2.9 Ever 127 93.4 132 97.1 Get information on the importance of physical activity Never 15 11.0 14 10.3 Ever 121 88.9

122 89.7 Total 136 100 136 100 Early school age: a student who is five years old when entering grade 1 (young age) Middle school age: a student who is seven years old when entering grade 1 (appropriate age / according to the rules) Purba, E. R. V., Lusmilasari, L., Hastuti, J. (2020) Belitung Nursing Journal Differences in the Students’ Knowledge and Attitudes Table 2 shows a significant effect of health education on knowledge and attitude among students in the experiment and comparison groups. The use of audiovisual (video and poster) or poster only provided a significant difference in

knowledge and attitude before and after the given intervention ($p < 0.001^*$).

However, the mean difference in the experimental group was higher than the control group in both knowledge and attitude, and it was statistically significant ($p < 0.001^*$).

Table 2 Differences in the Average of Students' Knowledge and Attitudes in the Pretest and Posttest (N= 272) Variables Pretest Posttest Mean p - value

Mean (min-max) Difference Knowledge Comparison group 12.22 (3.00 - 19.00) 16.65

(9.00 - 20.00) 4.42 < 0.001*a Experimental group 11.70 (3.00 - 18.00) 17.50 (10.00 -

20.00) 5.79 < 0.001*a p-valueb < 0.001* Attitude Comparison group 41.53 (31.00 -

51.00) 48.58 (38.00 - 55.00) 7.05 < 0.001*a Experimental group 41.77 (31.00 - 48.00)

51.27 (41.00 - 58.00) 9.50 < 0.001*a p-valueb < 0.001* *significance at <0.05 | a paired

sample t-test | b independent t-test DISCUSSION This study aimed to determine the effect of health education using audiovisuals (videos and posters) on the knowledge and attitudes of students in the provision of PH BS compared to the health education using poster only. The results indicated that both techniques of interventions had a significant impact on the knowledge and attitudes of the students.

However, those who received audiovisual-based education were significantly higher in their knowledge and attitude than those who only received poster-based education.

This indicates that the use of audiovisuals (videos and posters) can effectively improve knowledge and attitudes. Our findings were in line with the study conducted by Oktaviana (2017), who revealed that the students' handwashing attitudes increased after given education using audiovisual media.

In this study, two-dimensional animated images and exciting videos were designed. The information given was short and clear for 45 minutes to increase the enthusiasm of students in receiving the provided education. Troseth and Strouse (2017) stated that videos could present information, describe processes, explain complex concepts, teach skills, shorten the time, can influence attitudes, in this case, pay more attention, understand the contents of the storyline, and can be watched repeatedly. Brugués et al.

(2016) also stated that video is one of the most effective students' learning media in the delivery of information. Knowledge related to learning is influenced by various factors from within (natural) and outside (intervention) directly or indirectly in the form of available information tools (Budiman, 2013). Information provided by using audiovisual makes the students focus more on listening actively during the process of providing education, both the presentation of videos and posters and discussion sessions.

This is in line with the research of Bieri et al. (2013) suggesting that the use of audiovisual media makes someone easily absorb the messages and experience improvements in

health practices and easier to understand compared to paper media (Van Der Meij & Van Der Meij, 2014). Albert et al. (2007) added that audiovisual media in education could convey consistent messages and increase understanding of the material. It is noted that the poster only was also significant in increasing the students' knowledge and attitude .

It is similar to Suiroaka and Supariasa (2012), who revealed that the poster provides a clear visual combination and attracts one's attention to be able to act from what is seen. Maimun and Erawan (2017) also said that the delivery of information using poster media could improve students' knowledge, attitudes, and actions in PHBS in Kendari City, Indonesia. Although using audiovisual to increase knowledge and attitude of the students is not new; however, this study confirms that the audiovisual media for learning purpose can be generalized.

We know that Papua is the eastern part of Indonesia, where a lack of studies was conducted compared to the number of researches conducted in the central and western part of Indonesia. The use of audiovisual as a medium to convey health information is more attractive to the students directly by the senses of sight and hearing. Also, this study serves as an input for pediatric and community nurses to provide better health education for the community, specifically for school health promotion.

Limitations of the Study Although the use of the comparison group could reduce the bias of the effect of the intervention in this study, and the characteristics of the respondents in both groups had been controlled. However, other factors might influence the knowledge and attitudes of the students, such as culture, teachers' role models, educational institutions (Siagian et al., 2010), or other factors, which should be explored in future studies. In addition, as we asked the respondents to study independently after given a direct intervention, the responses among students might be different, which could influence the results.

Besides, the instruments used in this study need further validation, specifically for good psychometric properties. **CONCLUSION** The use of audiovisual and poster-based health education provided a significant effect on knowledge and attitude in the provision of clean and healthy living behavior in the experiment and control group. However, the experimental group showed a higher mean score than the control group, which indicated that audiovisual-based education was more effective than the use of posters alone to increase the knowledge Purba, E. R. V., Lusmilasari, L.,

Hastuti, J. (2020) Belitung Nursing Journal and attitudes of clean and healthy living behavior. This study serves as an input for nurses, teachers, and parents to teach and

facilitate students to maintain the students' **clean and healthy living** behavior.

Declaration of Conflicting Interest There is no conflict of interest to declare. Funding This research was funded by Badan Pengembangan dan Pemberdayaan Sumber Daya Manusia Kesehatan (Board of Development and Empowerment Human Resources of Health). **Acknowledgment** We acknowledge the experts: Mrs. Sri Hartini, S. Kep., Ns., M.Kes., PhD., Mrs. Anik Rustiyaningsih, S.Kep.,Ns., M.Kep.,Ns .Sp.Kep.An; Mr. Akhmadi, S.Kp., M.Kes., M.Kep.,Sp.Kep.Kom ; and Mr. Totok Harjanto, S.Kep, Ns., M.

Kes , for input and direction in research instruments and instructional media (videos and posters). **Authors Contribution** All authors contributed equally in the design and concept, data collection, data analysis, and drafted the manuscript. All authors approved the final version of the article. **Author Biographies** **Ellen Rosawita Veronica Purba** , S.Kep.,Ns is a master nursing student at the **Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada** , Yogyakarta, Indonesia . ORCiD iD:

<https://orcid.org/0000-0002-7967-2744> Lely Lusmilasari, S.Kp., M.Kes., PhD is Head of Department of Pediatric and Maternity Nursing at the **Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada** , Yogyakarta, Indonesia.

ORCiD iD: <https://orcid.org/0000-0001-5137-692X> Janatin Hastuti, S.Si., K.Kes., PhD is A Senior Lecturer at the **Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada** , Yogyakarta, Indonesia. ORCiD iD: <https://orcid.org/0000-0001-8621-463X>

References Albert, N. M., Buchsbaum, R., & Li, J. (2007). Randomized study of the effect of video education on heart failure healthcare utilization, symptoms, and self-care behaviors. *Patient Education and Counseling*, 69 (1), 129-139.

<https://doi.org/10.1016/j.pec.2007.08.007> Amaya-Castellanos, C., Shamah -Levy, T., Escalante-Izeta, E., del Carmen Morales-Ruan, M., Jiménez-Aguilar, A., Salazar-Coronel, A., . . . Amaya - Castellanos, A. (2015).

Development of an educational intervention to promote healthy eating and physical activity in Mexican school -age children. *Evaluation and Program Planning*, 52 , 159-168. <https://doi.org/10.1016/j.evalprogplan.2015.05.002> Bieri, F. A., Gray, D. J., Williams, G. M., Raso, G., Li, Y. -S., Yuan, L., . . . Li, S.-M. (2013). Health -education package to prevent worm infections in Chinese schoolchildren. *New England Journal of Medicine*, 368 (17), 1603- 1612. <https://doi.org/10.1056/NEJMoa1204885> Brugués, J., Arandaa, N., Giralta, M., Chicaa, M., Solaa, R., Arijaa, V., . . . Romeua, M. (2016). Impact of a service learning (SL) experience on the improvement of knowledge in healthy eating habits in teenagers.

Procedia- Social and Behavioral Sciences, 228 , 202-208. <https://doi.org/10.1016/j.sbspro.2016.07.030> Budiman, R. A. (2013). Kapita selekta kuesioner: Pengetahuan dan sikap dalam penelitian kesehatan [Capita selekta questionnaire: Knowledge and

attitudes in health research]. Jakarta, Indonesia: Salemba Medika. Danari, A. L., Mayulu, N., & Onibala, F. (2013). Hubungan aktivitas fisik dengan kejadian obesitas pada anak SD di Kota Manado [Relationship of physical activity and obesity in elementary school children in Manado City]. *Jurnal Keperawatan*, 1(1), 1-4. Efendi, F., & Makhfudli. (2009).

Keperawatan kesehatan komunitas: Teori dan praktik dalam keperawatan [Community health nursing: Theory and practice in nursing]. Jakarta, Indonesia: Salemba Medika. Jayapura City Central Statistics Agency. (2013). PHBS at schools. Retrieved from <https://jayapurakota.bps.go.id/> Koem, Z. A. R. (2015). Relationship of knowledge and attitude of PHBS in students at Inpres Sukur Elementary School, Airmadidi District, Minahasa Utara Regency. *Pharmacon*, 4(4), 290-294. <https://doi.org/10.35799/pha.4.2015.10219> Lina, H. P. (2016). Perilaku hidup bersih dan sehat (PHBS) siswa di SDN 42 Korong Gadang Kecamatan Kuranji Padang [Clean and healthy life behavior at students of Elementary School of 42 Korong Gadang Kecamatan Kuranji Padang].

Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education, 4(1), 92-103. <http://dx.doi.org/10.20473/jpk.V4.I1.2016.92-103> Listyowati, D. (2012). Pengaruh intervensi promosi kesehatan terhadap pengetahuan, sikap, dan praktek cuci tangan pakai sabun pada siswa kelas 5 di SDN Pengasinan IV Kota Bekasi tahun 2012 [Effect of health promotion intervention on knowledge, attitude, and hand washing practice with soap among pupils of 5 -class at SDN Pengasinan IV Kota Bekasi year 2012]. Fakultas Kesehatan Masyarakat, Universitas Indonesia, Depok, Indonesia. Maimun, D. N., & Erawan, P. E. (2017).

Pengaruh Kesmas Cilik dalam meningkatkan pengetahuan, sikap dan tindakan perilaku hidup bersih dan sehat murid kelas V Sekolah Dasar Negeri 12 Poasia Kota Kendari tahun 2016 [The influence of Kesmas Cilik in improving the knowledge, attitudes and behavior of clean and healthy life for fifth grade students at 12 Poasia Elementary School, Kendari City in 2016]. *Jurnal Ilmiah Mahasiswa Kesehatan Masyarakat*, 2 (5), 1-9. Maulana, H. D. (2009). Health promotion. Jakarta, Indonesia: EGC. Ministry of Health of the Republic of Indonesia. (2011). Guidelines for the promotion of clean and healthy behavior. Jakarta, Indonesia: Ministry of Health of the Republic of Indonesia. Ministry of Health of the Republic of Indonesia. (2013).

Basic health research (RISKESDAS). Retrieved from <https://www.kemkes.go.id/resources/download/general/Hasil%20Riskasdas%202013.pdf> Nazliansyah, N., Wichaikull, S., & Wetasin, K. (2016). Factors affecting hand washing practice among elementary schools students in Indonesia. *Belitung Nursing Journal*, 2(4), 58-64. <https://doi.org/10.33546/bnj.24> Notoatmodjo, S. (2010). Teori promosi kesehatan dan aplikasinya [Health promotion theory and its applications] (revised ed.). Jakarta,

Indonesia: Rineka Cipta. Oktaviana, N. I. I. (2017).

Pengaruh edukasi sosiodrama tentang PHBS cuci tangan terhadap tingkat pengetahuan dan sikap cuci tangan siswa SD Muhammadiyah Kalangan [Effect of sociodrama education about PHBS on knowledge and attitude of handwashing among students at Muhammadiyah Kalangan Elementary School]. Fakultas Kedokteran dan Ilmu Kesehatan, Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia. Proverawati, A., & Rahmawati, E. (2016). *Perilaku hidup bersih dan sehat [Clean and healthy life behavior]* (2nd ed.). Yogyakarta, Indonesia: Nuha Medika. Siagian, A., Jumirah, J., & Tampubolon, F. (2010).

Media visual poster dan leaflet makanan sehat serta perilaku konsumsi makanan jajanan siswa sekolah lanjutan atas, di Kabupaten Mandailing Natal [Visual media posters, healthy food leaflets, and students' snack food consumption behavior at senior high school students at Mandailing Natal Rege ncy]. Kesmas: National Public Health Journal, 4 (6), 262-268. Suiroaka, I. P., & Supariasa, I. D. N. (2012). Media pendidikan kesehatan [Health education media]. Yogyakarta, Indonesia: Graha Ilmu. Sunaryo, S. R. A., Saifullah, A. D., & Mulyani, S. (2020). Knowledge and attitudes toward people with dementia among nursing students in Yogyakarta, Indonesia. *Belitung Nursing Journal* . <https://doi.org/10.33546/bnj.1178> Troseth, G. L., & Strouse, G. A. (2017).

Designing and using digital books for learning: The informative case of young children and video. *International Journal of Child-Computer Interaction*, 12 , 3-7. <https://doi.org/10.1016/j.ijcci.2016.12.002> Purba, E. R. V., Lusmilasari, L., Hastuti, J. (2020) *Belitung Nursing Journal* Tuyen, L. T. T. (2018). Toward an understanding of nursing knowledge development. *Belitung Nursing Journal* , 4(1), 1-7. <https://doi.org/10.33546/bnj.402> van der Meij, H., & Van Der Meij, J. (2014). A comparison of paper-based and video tutorials for software learning. *Computers & Education*, 78 , 150- 159. <https://doi.org/10.1016/j.compedu.2014.06.003> Vio, F., Salinas, J., Montenegro, E., González, C. G., & Lera, L. (2014).

Impact of a nutrition education intervention in teachers, preschool and basic school-age children in Valparaíso Region in Chile. *Nutrición hospitalaria*, 29(6), 1298-1304. <http://dx.doi.org/10.3305/nh.2014.29.6.7409> World health Organization. (n.d.). Health promoting schools. Retrieved from https://www.who.int/health-topics/health-promoting-schools#tab=tab_1 Yulianti, W. (2015). *Clean and healthy life behavior* (PHBS) of elementary children at SDN Jabon 1 Mojoanyar Mojokerto. (Mini Thesis), Stikes- Poltekkes Majapahit Mojokerto, Indonesia. Retrieved from <http://103.38.103.27/repository/index.php/PUB-KEP/article/view/514> Cite this article as: Purba, E. R. V., Lusmilasari, L., & Hastuti, J. (2020).

School health promotion : A quasi-experimental study on clean and healthy living-behavior among elementary students in Jayapura, Papua, Indonesia. Belitung Nursing Journal . <https://doi.org/10.33546/bnj>.

INTERNET SOURCES:

19% - <https://belitungraya.org/BRP/index.php/bnj/article/download/781/330>
<1% - <https://onlinelibrary.wiley.com/doi/epdf/10.1002/rmv.2222>
<1% - <https://www.onlinelibrary.wiley.com/doi/10.1002/brb3.1888>
7% - <https://belitungraya.org/BRP/index.php/bnj/article/view/781>
<1% - <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-017-4877-4>
<1% - <https://www.sciencedirect.com/science/article/pii/S0921344916303160>
<1% - <https://belitungraya.org/BRP/index.php/bnj/article/download/1178/329>
<1% - <http://ufdc.ufl.edu/AA00013262/00001>
<1% - <https://www.ncbi.nlm.nih.gov/books/NBK279012/>
<1% -
<https://red.library.usd.edu/cgi/viewcontent.cgi?article=1072&context=honors-thesis>
<1% - <https://www.scribd.com/document/405685112/fgbfrhth-compressed-pdf>
<1% - <https://positivepsychology.com/self-efficacy-scales/>
<1% -
<https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-021-03634-7>
<1% - <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0223046>
<1% - <https://www.ijsr.net/archive/v8i9/ART2020991.pdf>
<1% -
<https://www.quora.com/Which-test-do-I-use-Kolmogorov-Smirnov-or-Shapiro-Wilk-if-I-ve-got-a-sample-size-of-80-participants-and-the-data-is-nominal-Im-using-an-independent-t-Test-on-SPSS-with-2-different-conditions>
<1% - <https://researchservices.cornell.edu/resources/irb-faqs>
<1% - <https://aisyah.journalpress.id/index.php/jika/article/download/5109/pdf>
<1% - <https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-021-02771-z>
<1% - <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0199421>
<1% -
<https://nyeratblog.wordpress.com/2016/02/18/audio-visual-aids-as-media-in-teaching-of-writing-in-esl-classroom/>
<1% - <https://www2.palomar.edu/pages/tjohnston2/tag/classroom-management/>
<1% - <https://ufdc.ufl.edu/UFE0045690/00001>
<1% -
<https://syaifullaheducationinformationcenter.blogspot.com/2008/11/some-theories-abo>

ut-english-teaching.html

<1% -

<https://writepass.com/journal/2017/01/research-methodology-design-and-process-dementia-care/>

<1% - <https://link.springer.com/article/10.1007/s11423-020-09806-0>

<1% - https://www.neliti.com/balitbangkes/catalogue?per_page=100&page=8