



Efforts to Maintain Health by Implementing Six Step Handwashing for Middle School Students

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Abstract: Efforts to maintain health can be carried out with a clean and healthy lifestyle, including by washing hands 6 steps. Hands are the medium that transmits disease the most, so they must always be clean by washing hands in the 6 steps. The six steps to washing your hands start with pouring soap into your palms, rubbing your palms together, rubbing the back or back of your hands, rubbing between your fingers, rinsing off the soap and drying your hands. The results of observations in the classroom action research on 21 respondents consisting of junior high school students in Bekasi concluded that the majority of respondents (66.67%) had carried out the 6 steps of hand washing correctly. The results of observations of step-by-step hand washing stated that most respondents (72.79%) did the 6-step hand washing properly, in fact all respondents (100%) had carried out step 1 or step 1, namely pouring soap on their palms before washing. Hand. The quality of the implementation of the 6-step hand washing which was mostly good was made possible by the information obtained in the counseling conducted before the respondents carried out the practice of hand washing. The quality of the implementation of the 6-step hand washing which was mostly good was also made possible by the condition of the respondents who were mostly or 85.71% were women.

Keywords: Health Maintenance; Health Prevention; Six-Step Hand washing

Introduction

Clean and Healthy Living Behavior (PHBS) is a set of behaviors that are practiced on the basis of awareness as learning outcomes, which make a person, family, group or community able to help themselves in the health sector and play an active role in realizing public health (Jourdan et al., 2021; La Patilayya, 2021). PHBS includes various behaviors that must be practiced in order to achieve the highest degree of public health (Karso & Wibawa, 2017; Kusuma, 2021).

Behavior is an individual's assumption or reaction to stimuli or the environment (Patterson, 2020; Qisti et al., 2021). Behavior is related to predisposing factors such as knowledge, attitudes, age, gender, culture and so on. Behavior is related to supporting factors such as services, facilities, infrastructure, facilities and so on (Uchendu et al., 2020). Behavior is also related to

reinforcing factors such as officer support, family support, community support and so on.

Behavior is related to predisposing factors such as knowledge, attitudes, age, gender, culture and so on. Predisposing factors (predisposing factors) are factors that facilitate the implementation of clean and healthy living behavior. Behavior is related to supporting or driving factors such as services, facilities, infrastructure, facilities and so on. Enabling factors are factors that enable a clean and healthy lifestyle to occur. Behavior is also related to reinforcing factors such as officer support, family support, community support and so on. Reinforcing factors are factors that encourage clean and healthy living behavior (Poonaklom et al., 2020).

Handwashing is a form of behavior practiced by students in educational institutions to create educational institutions with PHBS (Almoslem et al., 2021; Mohamad et al., 2022). The scope of PHBS is quite broad,

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including efforts to prevent infectious diseases, maintain and improve health. During the Covid-19 pandemic and after the pandemic, people were encouraged to implement health protocols, including the habit of washing their hands (Putra et al., 2021).

The six-step hand washing begins with pouring soap on the palms of the hands, rubbing the soap on both palms, rubbing the back or back of the hands, rubbing between the fingers, rinsing the soap and drying hands using a towel or tissue (Amin et al., 2019). Currently there are many children who do not carry out the steps for washing hands completely and correctly, even though disease transmission in children that occurs through the hands has an 80% chance. Hands are also the medium that transmits disease the most, especially diseases caused by bacteria and viruses (Jauhari, 2020; Utami et al., 2023), so hands must always be clean by following the 6 steps of hand washing (Setiawan et al., 2021; Tschudin-Sutter et al., 2019).

This study aims to examine the ability of students to practice the 6 steps of hand washing as one of the efforts to maintain health. This research is also expected to be able to obtain a useful description of the implementation of PHBS in schools because by practicing PHBS in all environments, the community will be able to independently improve their health, and play an active role in creating a healthy environment (Sagala et al., 2019).

Washing Hands 6 Steps

Regulation of the Minister of Health of the Republic of Indonesia number 2269 of 2011 states that PHBS in educational institutions, including schools, must practice behaviors that can create educational institutions with PHBS. This behavior is practiced on the basis of awareness as a result of learning, which makes a person, family, group or community able to help themselves in the health sector and play an active role in realizing public health.

The PHBS program is a health program that seeks to provide learning experiences or create conditions for individuals, groups and communities by opening lines of communication, providing information and conducting education. The PHBS program aims to increase knowledge, attitudes and actions carried out through an advocacy approach, fostering an atmosphere and empowering the community (Difa & Parida, 2022). This is done as an effort to help the community identify and overcome their own problems through implementing clean and healthy ways of life by maintaining and improving their health status.

The scope of PHBS is quite broad, covering efforts to prevent or control disease, health maintenance and various other health fields (Madeira et al., 2019). For disease prevention and control as well as environmental

sanitation, hand washing practices, drinking water and food management that meet the requirements, using clean water, using healthy latrines, liquid waste management that meets the requirements, eradicating mosquito larvae or eradicating mosquito advice must be practiced smoking indoors and so on. For the health care sector, the behavior of participating in health care insurance, actively managing or utilizing community-based health efforts must be practiced. In the field of maternal and child health as well as family planning, the behavior of weighing toddlers every month, complete immunization of infants, becoming family planning acceptors and so on must be practiced. In the field of nutrition and pharmacy, the behavior of eating with balanced nutrition, taking iron tablets during pregnancy, giving babies exclusive breast milk and so on must be practiced.

PHBS in schools is a behavior that is practiced by students, teachers, school staff and the school community on the basis of awareness as a learning outcome (Putra et al., 2020). By practicing PHBS in the school environment, people can independently prevent disease, improve their health, and play an active role in creating a healthy environment.

Behavior is related to predisposing factors such as knowledge, attitudes, age, gender, culture and so on. Predisposing factors are factors that facilitate the implementation of clean and healthy living behavior. The higher the education, the easier it is for someone to receive information so that the higher the knowledge (Notoatmojo, 2011). Cultural values, for example, concern written rules which are signs to do something or not to do something. Gender also shows differences in behavior. That women can absorb information five times faster than men. This can be a reason to explain that women are quicker to conclude something than men. In other words, women's ability to receive information conveyed during counseling is better than men so that their knowledge and practice of 6-step hand washing is also better.

Behavior is related to supporting or driving factors such as services, facilities, infrastructure, facilities and so on. Enabling factors are factors that enable a clean and healthy lifestyle to occur. Provision of cleaning facilities or equipment such as clean water installations, bathrooms, sinks, hand washing stations, and so on encourages the implementation of clean and healthy living behaviors.

Behavior is also related to reinforcing factors such as officer support, family support, community support and so on. Reinforcing factors are factors that encourage clean and healthy living behavior. Appeals by officers to always wash their hands with soap or warnings from families to always wear masks when leaving the house are factors that reinforce behavior. Support from the

community to keep their distance, avoid crowds or reduce mobility due to the pandemic is also a factor that strengthens clean and healthy living behaviors.

Hand washing is one of the sanitation actions that is carried out by cleaning hands using running water and soap by doing the six-step hand washing (Yeargin et al., 2021). This action will free hands from viruses and bacteria as an effort to maintain health (Ishak & Rabbania, 2022). Washing hands with soap is done by washing hands in the correct 6 steps. The complete 6-step hand washing can be done according to Figure 1.



Figure 1. Six Steps to Washing Hands

There are several critical points that require a person to take complete and correct hand washing steps, including: wash hands before, during and after food preparation; before and after eating or after using the toilet; after having direct contact with a sick person; before and after cleaning or touching a wound; after touching dusty objects or when hands are visibly dirty; and after coughing, sneezing, or blowing the nose

The activities mentioned above can make bacteria and viruses stick to the hands, then transfer to other people when holding an object and the object is then held by another person. Washing hands six-steps can prevent disease transmission as well as maintain personal health so that the degree of health will increase.

Washing hands with water alone is not enough because it is not effective in maintaining health (WHO, 2020). The absence of soap causes the fat that sticks to the skin to be cleaned. The use of soap is very effective for removing fat when rubbed on the palms of the hands, the back or back of the hands, and between the fingers and other body parts. Running water and the use of soap

will expel all viruses and bacteria hiding in fat and prevent disease transmission and are useful for maintaining health.

Method

The method used to examine the problem is descriptive qualitative research. This research consists of preparing research plans, conducting research interventions or actions, collecting data by observing and conducting analysis by reflecting (Tomaszewski et al., 2020). At the stage of preparing the research plan, the preparation of observation guidelines used to collect data, the preparation of extension activity plans, the preparation of media used for counseling and so on. The observation guidelines and counseling media contain material on the 6-step hand washing.

The research was started by giving a pre-test about 6-step hand washing practices to the students. As a result, none of the students could complete the 6-step hand washing. The students were then given counseling on the practice of 6-step hand washing supplemented with practical exercises.

Data collection is carried out by carrying out research according to the plan that has been prepared. Observation guidelines that have been prepared are used to collect data by observing students doing the 6-step hand washing practice.

The last step in the research is to analyze the observed data and reflect on the research results. Reflection activities were carried out to review the results of the 6-step hand washing practice after the students were given counseling. Reflection activities are also carried out to provide useful improvement suggestions for making the next plan.

Result and Discussion

The results of observations of 21 junior high school students in Bekasi which were carried out in November 2022 found data that all respondents were unable to carry out the 6-step hand washing. Before being given counseling, they just washed their hands as is by wetting both hands with water, rubbing their hands moderately then rinsing them with water.

Respondents were then given information about the 6-step procedure for washing hands as follows: pour soap into the palms; rub the soap on both palms; rub the soap on the back of your hands; rub the soap between your fingers; rinse the soap under running water; and dry both hands using a towel or tissue.

After getting clear information, one by one the students then practiced hand washing and were assessed using the six-step hand washing assessment

guideline. The results of an assessment of 21 junior high school students in Bekasi found data that all of them had used soap, but many of them had not carried out the 6-step hand washing completely and correctly.

The results of the observation found that most of the respondents (66.67%) had practiced the 6-step hand washing completely and correctly. The distribution of the 6-step hand washing practices of all respondents can be seen in table 1.

Table 1. Distribution of Handwashing Practices

Washing hands	ε	%
Correct	14.00	66.67
Wrong	7.00	33.33
Total	21.00	100.00

Hand washing with complete and correct steps with six-steps is very important. This habit is necessary to prevent transmission of disease while maintaining health. The transmission of disease to children that occurs through the hands has an 80% chance (Sjahriani, 2019). Hands are the medium that transmits the most diseases, especially diseases caused by bacteria and viruses, so hands must always be clean by washing hands with the right steps.

The obligation to wash hands in these 6 steps is very important for children, especially when children are in the following conditions: before eating, drinking or consuming snacks; before and after eating or after using the toilet; before and after cleaning or touching a wound; after touching dusty objects or when hands are visibly dirty; and after coughing, sneezing or blowing your nose.

The quality of the implementation of hand washing step by step was carried out well by most students (72.79%), in fact all respondents (100%) did step 1 or step 1 correctly, namely starting to wash their hands by pouring soap on their palms. The distribution of the results of the 6-step hand washing implementation for each of the steps can be seen in table 2.

The results of observations of 21 junior high school students in Bekasi City show the appearance of the respondents in carrying out the 6 steps of hand washing as follows: Step 1 : All students (100%) do step 1 by pouring soap into their palms; Step 2 : Most students (85.71%) did step 2 by rubbing soap on both palms; Step 3: Most students (85.27%) did step 3 by rubbing soap on the back or back of their hands; Step 4 : Most students (71.43%) did step 4 by rubbing soap between their fingers; Step 5 : Most of the students (80.95%) rinsed off the soap on both hands; and Step 6 : Most students (85.71%) dry their hands.

Table 2. Distribution of the Implementation of six-Step Handwashing

Step	Do		No	
	ε	%	ε	%
I	21.00	100.00	0.00	0.00
II	18.00	85.71	3.00	14.29
III	18.00	85.71	3.00	14.29
IV	15.00	71.43	6.00	28.57
V	17.00	80.95	4.00	19.05
VI	18.00	85.71	3.00	14.29
Average		72.79		13.98

Table 2 states that all respondents (100%) use soap to wash their hands. The use of soap in washing hands should be emphasized especially for children because soap has been proven to be effective in removing bacteria and viruses (Ijaz et al., 2021). Washing hands only with water and not using soap is not sufficient because it is not effective in removing dirt in the form of fat that sticks to the skin.

The use of soap is very effective for removing fat when rubbed on the palms, back or back of the hands, and between the fingers (Gawai et al., 2016). Running water and applied soap will expel all viruses and bacteria hiding in fat and prevent disease transmission, maintaining and improving health. The best soap to use for washing hands is antiseptic soap, but basically any type of soap can be used because soap has been proven to be effective at eradicating viruses and bacteria.

The quality of the implementation of the 6 steps of good hand washing is also made possible by the gender of the respondents. In table 3 it can be seen that most of the respondents or 85.71% were women and the rest were men (14.29%). Women can absorb information five times faster than men so that the ability of some respondents to practice the 6-step hand washing is mostly good.

Table 3. Gender of Respondents

Gen	Amount	Percentage (%)
Male	3	14.29
Female	18	85.71
Total	21	100.00

Some of the respondents did not carry out the 6 steps of hand washing completely and correctly. The possible causes were the unavailability of hand washing facilities or facilities in the cafeteria or places to eat and drink around the school, the unavailability of soap to wash hands in the bathroom or toilet after defecating, and so on. The school needs to pay attention to the provision of hand washing facilities, especially the provision of soap at locations used by children to wash their hands. The provision of hand washing facilities and facilities is important because it is a driving factor for

clean behavior. Enabling factors are factors that enable students to behave cleanly.

The quality of the implementation of the six-step hand washing which was mostly good was made possible by the information obtained in the counseling held before the respondents carried out the 6-step hand washing practice. Before being given counseling, all children could not carry out the 6-step hand washing, but after being given information in the form of counseling, the children's ability to carry out the 6-step hand washing greatly improved. This is in accordance with the opinion of (Notoatmojo, 2011) which says that the information given to someone will increase their knowledge.

In addition to implementing the 6-step hand washing, clean living behaviors that can be carried out as an effort to maintain health include making the following efforts: consuming healthy snacks and drinks at school that can contribute energy and nutrients that are useful for children's growth. The school needs to create food and beverage sanitation hygiene by controlling food, people, places and equipment; using latrines that are clean, free of insects, safe, odorless and easy to clean by the user.

To make this happen, the distance between the septic tank and the well is at least 10 meters and the used water is not disposed of into ditches, ponds, lakes, rivers or the sea so as not to pollute the environment; do regular and measurable exercise. For this reason, schools need to provide facilities that can be used optimally to increase children's physical activity. Making green spaces within the school environment can also spur children's creativity in sports activities; carry out Mosquito Nest Eradication to kill mosquito larvae at least once a week. The minimum effort made is 3M, namely burying used goods, draining water reservoirs and closing water reservoirs; establish no-smoking areas both in schools and outside schools, especially in places designated as Non-Smoking Areas such as teaching and learning areas, places for children to play, places of worship, public transportation, workplaces, health service facilities, and public places; monitor the nutritional status of children by weighing their weight (WW) and measuring their height (TB) every month. Additional food is given to children who have less nutritional status, while children who have more nutritional status need to be encouraged to exercise to restore their nutritional status; and provide trash cans so that children can dispose of waste in a place that fits the category of waste. Organic waste that comes from plants, vegetables, fruits or food waste is collected in green trash cans. Non-organic waste originating from paper, plastic or mica is collected in yellow trash cans. Hazardous and toxic materials such as glass, cans, metal, batteries, bottles, or glass are placed in red bins.

Conclusion

Most students (66.67%) have practiced the correct six-step hand washing and most students (72.79%) have also carried out step-by-step hand washing according to the 6-step hand washing procedure and this can be done well. Furthermore, this study also concluded the following all respondents (100%) did step 1 correctly, which was to start washing their hands by pouring soap on their palms. The use of soap in washing hands must be emphasized because soap has been proven to be effective in removing bacteria and viruses; most of the respondents were able to perform the 6-step hand washing well, possibly due to the information obtained in the counseling held before the respondents carried out the 6-step hand washing practice; and most of the respondents were able to do the 6-step hand washing properly because 85.71% of the respondents were women whose ability to receive information was better than men.

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Author Contribution

Mulyo Wiharto: drafting concepts, data seekers, data analyzers, report presenters, report revisions, and correspondence. Sumartono: respondent extension, data input, and data editing. Jerry Maratis: respondent extensionist, layout designer, and data presenter

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Conflicts of Interest

The authors declare no conflict of interest.

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