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## Children's Hands Washing Activities in The Prevention of COVID-19

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### Kata Kunci

COVID-19;  
Pencegahan;  
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Cuci Tangan

### Abstrak

Coronavirus Disease 2019 (COVID-19) merupakan jenis penyakit baru yang menyebabkan banyak kematian. COVID-19 berdampak parah pada anak-anak dan remaja. Langkah yang direkomendasikan berdasarkan protokol COVID-19 untuk meminimalisir penyebaran infeksi adalah dengan meningkatkan pola hidup bersih, salah satunya dengan mencuci tangan. Tujuan penelitian ini adalah mengetahui aktivitas mencuci tangan pada anak dalam mencegah COVID-19. Penelitian ini menggunakan dua desain penelitian yaitu deskriptif kualitatif dan kuantitatif (sequential explanatory design) yang bertujuan untuk mengetahui perilaku cuci tangan anak usia sekolah dalam mencegah infeksi COVID-19 di Karisidenan Besuki. Populasi dalam penelitian ini adalah anak usia sekolah yang diambil sebanyak 150 responden. Penelitian ini menggunakan teknik non probability sampling dengan pendekatan purposive sampling. Alat pengumpulan data menggunakan pertanyaan wawancara semi terbuka dan kuesioner perilaku cuci tangan. Hasil penelitian adalah perilaku cuci tangan anak usia sekolah di Karisidenan Besuki yang memiliki perilaku cuci tangan baik sebanyak 78 orang (52,0%) dan responden yang memiliki perilaku cuci tangan buruk sebanyak 73 orang (48,0%). Hasil wawancara adalah merasa jijik dengan tangan yang kotor, menghilangkan bau yang menempel di tangan, tangan masih bersih dan tangan tidak bau. Perilaku cuci tangan perlu diberdayakan agar anak mengetahui, mau, dan mampu menerapkan perilaku cuci tangan dengan menggunakan air mengalir dan sabun untuk mencegah penularan infeksi khususnya pada masa pandemi COVID-19.

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### Keywords

COVID-19;  
Prevention;  
Childs;  
Hand Washing

### Abstract

Coronavirus Disease 2019 (COVID-19) is a new type of disease that causes many deaths. COVID-19 is having a severe impact on children and young people. One of the recommended steps based on the COVID-19 protocol to minimize the spread of infection is to improve a clean lifestyle, one of which is washing hands. This study aimed to determine the activity of washing hands in children in preventing COVID-19. This study used two research designs, qualitative and quantitative descriptive (sequential explanatory design) which aim to determine the hand washing behaviour of school-age children in preventing COVID-19 infection in Karisidenan Besuki. The population in this study were children of school age taking as many as 150 respondents. This study used a non-probability sampling technique with a purposive sampling approach. Data collection tools used semi-open interview questions and hand-washing behaviour questionnaires. The results of the study were handwashing behaviour for school-age children in Karisidenan Besuki who have good handwashing behaviour 78 people (52.0%) and respondents who have bad handwashing behaviour 73 people (48.0%). The result of the interview was feeling disgusted with dirty hands, eliminating odours that stick on hands, the hands are still clean and the hands do not smell. Hand washing behaviour needs to be empowered so that children know, want, and can apply hand washing behaviour using running water and soap to prevent infection transmission, especially during the COVID-19 pandemic.

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## Introduction

Coronavirus Disease 2019 (COVID-19) is a new type of disease that causes many deaths. The age of COVID-19 patients has a direct impact on the mortality rate. Compared to the children's age group and the younger age group, the most sufferers of the disease are the elderly group (age 65 years and over). From a health point of view, children and adolescents are less directly affected than adults and the presentation of the disease has different characteristics. Nevertheless, COVID-19 is having a severe impact on children and young people. These indirect and downstream implications should not be ignored (1,2).

The study estimates that less than 1% of children under 10 years of age are infected with COVID-19 and 2.4% of them are less than 18 years old with a mortality rate in children under 10 years of almost 0. The pediatric COVID-19 study stated that as many as 2143 children with On laboratory tests confirmed or suspected COVID-19, and the majority of pediatric patients (94.1%) were diagnosed as asymptomatic, or with mild or moderate disease. Research by the China nCov Pneumonia Emergency Response Epidemiology Team on 72,314 respondents found that around 2% of the 44,672 confirmed COVID-19 cases were children aged 0-19 years. As many as 0.9% of this number are children aged under 10 years with a mortality rate of 1 child in the 10-19 year age group (3). Other data were obtained from Italy which reported 1.2% of 22,512 cases of COVID-19 on March 18, 2020 (4) and 5% of 4226 cases in the United States until March 16, 2020 were children (5). Meanwhile, data on cases of COVID-19 in children in Indonesia shows a high number when compared to China, Italy, and the United States. The Indonesian Pediatrician Association (IDAI) stated that as of May 18, 2020, it was known that the number of Patients Under Supervision (PDP) was 3,324 children with a child mortality rate of 129 children with PDP status, 584 children with confirmed COVID-19, and 14 children dying from COVID-19 (6).

The finding data proves that it is not correct to say that the children are not susceptible to COVID-19 or will only experience mild illness. Although in general children who are infected with COVID-19 do not show symptoms, it does not mean that COVID-19 is not dangerous for children. Some conditions in children can make them vulnerable to severe complications. American Centers for Disease Control and Prevention (CDC) data shows that older children and adolescents are more at risk for developing deadly complications, including multisystem inflammatory syndrome and respiratory failure. Dealing with clinical impact, the data shows that the proportion of severe and critical cases appears to be inversely related to age suggesting that children, particularly babies and preschoolers may be more susceptible to COVID-19-related morbidity (5). Some cases can progress to lower respiratory tract infections. Such cases may also rapidly progress to acute respiratory distress syndrome (ARDS), septic shock, refractory metabolic acidosis, and coagulation dysfunction (7). Children with severe cases of COVID-19 were first reported in China with initial complaints of digestive symptoms, initial symptoms of unclear airways and no history of previous illness and then rapidly worsening to ARDS, septic shock, and acute renal failure (Cui et al., 2020).

The most important factor in preventing the spread of the Virus locally is to empower citizens with the right information and take appropriate precautions. One of the recommended steps based on the COVID-19 protocol to minimize the spread of infection is to improve a clean lifestyle, one of which is washing hands. Hands are the main way of entering disease germs easily into the body because hands are in direct contact with many things, both objects and food (9). The early childhood phase generally still has a low immune system. Problems in health behaviour that occur in early childhood are generally closely related to personal and environmental hygiene, one of these behaviours is the habit of washing hands using soap (10). The behaviour of washing hands using inappropriate soap is still found in many children, this is influenced by the low knowledge and skills of children in washing hands

The role of nursing in improving health status, especially in preventing infection during the COVID-19 pandemic, is by carrying out preventive actions in the form of primary, secondary, and tertiary prevention. Based on the problems described above, researchers are interested in research to determine the description of children's handwashing behaviour, so that they can provide preventive measures in preventing disease infections and improving the quality of nursing care services in improving handwashing behaviour in school-age children in the COVID-19 pandemic area.

## Methods

This study uses two research designs, namely qualitative and quantitative descriptive (sequential explanatory design) which aim to determine the hand washing behaviour of school-age children in preventing COVID-19 infection in Karisidenan Besuki. The population in this study were children of school age. The number of samples taken was as many as 150 respondents. This study uses a non-probability sampling technique with a purposive sampling approach. Data collection tools used semi-open interview questions and hand-washing behaviour questionnaires. This study uses a hand washing behaviour questionnaire which contains 8 questions, each of which contains 5 positive questions and 3

questions with negative values. This questionnaire has been tested for reliability with a Chronbach's alpha value of 0.817. This study uses two analyzes, namely step 1 by analyzing univariate (single). Data analysis was carried out by calculating the answers always, sometimes, and never for each sub-item of the question. The results of the study were categorized as good if the value of  $x > 19$  and categorized as bad if the value of  $x < 19$ . Followed by step 2 by validating the highest and lowest parts of the value of hand washing behaviour with open-ended questions to 10 participants to strengthen the results of the study.

## Results

### Step 1. Analysis of respondent characteristics

Characteristics of respondents based on gender, age, parental education, and parental occupation.

There were 150 respondents in this study.

**Table 1.** Characteristics of respondents based on gender, age, parental education, and parental occupation.

Variable	Amount	Percentage (%)
Sex		
Man	72	48,0
Woman	78	52,0
Total	150	100,0
Age		
6	6	4,0
7	14	16,0
8	15	10,0
9	21	14,0
10	24	16,0
11	12	8,0
12	48	32,0
Total	150	100,0
Parental education		
No education	0	00,0
Elementary	33	22,0
Junior High School	51	34,0
Senior High School	57	38,0
Collage	9	6,0
Total	150	100,0
Parental occupation		
Jobless	6	4,0
Employee	9	6,0
Entrepreneurs	60	40,0
Civil servant	3	2,0
Civil servant	15	10,0
Farmer	57	38,0
Total	150	100,0

Based on the table above, it is found that most of the respondents are women, they are 78 children (52%), the age of most respondents is 12 years with a total of 48 children (32%), and the education of the respondent's parents is the highest school as many as 57 people (38%), the majority of job respondents' parents are entrepreneurs as many as 60 people (40%).

**Table 2.** Category of hand washing behaviour for school-age children Karisidenan Besuki

Handwashing behaviour	Amount	Percentage (%)
Good	78	52,0
Bad	72	48,0
Total	150	100,0

Based on the table above, shows that the category of handwashing behaviour for school-age children in Karisidenan Besuki who have good handwashing behaviour is 78 people (52.0%) and respondents who have bad handwashing behaviour are 73 people (48.0%).

**Table 3.** Frequency of Behavioral Indicators With Highest and Lowest Means

Indicator	Never	Seldom	Always
I wash my hands with soap after defecating	6 (4%)	21 (14%)	123 (82%)
I wash my hands with soap after playing and exercising	45 (30%)	57 (38%)	48 (32%)

Source: Primary Data June 2020

The table above shows the frequency of the highest indicator of washing hands after defecating, which is never 6 (4%), sometimes 21 (14%), always 123 (82%) and the indicator with the lowest mean washing hands after playing and exercising is never 45 (30%), sometimes 57 (38%), and always 48 (32%).

## Step 2. Explanation of Themes With The Highest and The Lowest Indicators

Table 4. Interview Description

Session	Interview method	Theme	Category	Duration
1	Face-to-face interview with semi-open questions	Washing hands with soap after defecating	<ul style="list-style-type: none"> <li>Feeling disgusted with dirty hands</li> <li>Eliminates odours that stick on hands</li> </ul>	10-15 minutes
2	Face-to-face interview with semi-open questions	Washing hands with soap after playing and exercising	<ul style="list-style-type: none"> <li>The hands are still clean</li> <li>The hands are not smell</li> </ul>	10-15 minutes

### Washing Hands With Soap After Defecating

Based on the theme of washing hands with soap after defecating, statements can be seen, below:

"I'm disgusted if I don't wash my hands after defecating" (P10)

"It seems like there is something smell bad" (P8, P6)

"The hands look dirty if I don't wash my hands" (P9)

"The smell is bad so I need to wash my hands with a fragrance soap" (P3, P7)

### Washing Hands With Soap After Playing And Exercising

Based on the theme of washing hands with soap after playing and exercising, the statements can be seen, below::

"After exercise, I don't think I need to wash our hands because our hands are still clean" (P4, P2)

"My hands are not dirty so I don't need to wash my hands after exercise" (P7)

"I do a sport but I don't do something dirty" (P3, P5, P1, P9)

"my hands do not smell bad after exercise" (P2)

## Discussion

Based on the research data, most children have good hand-washing behaviour. The questionnaire shows that most of the children's behaviour in washing their hands is unfavourable, negative statements that children are not supportive of, it means after playing and exercising they must wash their hands with soap, children are also still not accustomed to wash hands with soap after handling pets, and statements after washing their hands, they must be dried using a cloth, some of the children are not used to but most of them have applied. While on the favourable questionnaire, which is a supportive statement, it can be seen from the answers given by the children, for example, most of the respondents wash their hands before and after eating, and after defecating they must wash their hands with water and soap.

This study is in line with the results of research conducted by Pauzan regarding the relationship between knowledge and hand washing behaviour of students at the Bandung City State Elementary School which showed that most of the respondents behaved well (11). This is in contrast to research conducted by the Indonesian Ministry of Health in 2010, which stated that someone who already understands the importance of CTPS does not necessarily practice it automatically. It is evident from the data on the introduction of the importance of handwashing with soap (CTPS) in Indonesia, which began in the 80's against 5 important times. food, and before preparing a meal (12).

During the outbreak of COVID-19, which has now become a worldwide pandemic, washing hands with soap and running water is one of the most effective and efficient prevention methods. The recommendation to wash hands is not only when outside the house but also inside the house, such as when we order food from outside, and so on considering that the COVID-19 virus can be anywhere, sticking to objects around us. In addition, we are also prohibited from touching our noses, mouth, and eyes before washing our hands. Hand washing with soap has been introduced from an early age through the PHBS (Clean and Healthy Living Behavior) program. This prevention method through CTPS will be optimal if it is carried out properly, using soap and running water, for at least 20 seconds, and refers to the 6 steps recommended by the Ministry of Health and WHO. So in this case it is necessary to form the behaviour of children to be able to get used to washing hands properly.

Behaviour is an individual's response to a stimulus or action that can be observed and has a specific frequency, duration and purpose, both consciously and unconsciously (13). Two factors can influence behaviour, namely endogenous and exogenous factors. Endogenous factors include race, gender, physical characteristics, personality, innate talent, and intelligence, while exogenous factors include environment (age, education, occupation, religion, socioeconomic, and culture). The formation of new behaviour starts from the cognitive or knowledge domain, which means that the subject must first know the stimulus in the form of material or external objects so that new knowledge arises in the form of attitudes towards objects that he already knows, and will then elicit a further response in the form of action (14). The researcher's opinion based on the results of this study, hand washing behaviour in school-age children can indeed be influenced by gender, parental education, and parental occupation. However, this is not the main factor that determines whether a child's behaviour is good or not because there are still other factors that influence behaviour as described above, namely endogenous and exogenous factors. Hand washing behaviour needs to be empowered so that children know, want, and can apply hand washing behaviour using running water and soap to prevent infection transmission, especially during the COVID-19 pandemic.

## Conclusion

Hand washing behaviour needs to be empowered so that children know, want, and can apply hand washing behaviour using running water and soap to prevent infection transmission, especially during the COVID-19 pandemic. The role of the nursing profession in empowering hand-washing behaviour can work with the community to be more optimal in increasing the motivation of children's clean living behaviour, especially washing hands.

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