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Factors Influencing Behavior of Six-Steps Handwash with Soap among Children with Special Needs

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Abstract:

Background: Children with special needs are at risk for chronic diseases. Information regarding children with special needs are limited thereby making them vulnerable to the diseases. Disease occurs because children do not wash their hands. Efforts are made to prevent children from disease, including explaining to the children about how to wash their hands properly. **Purpose:** This study aimed to examine knowledge, attitude, behavior, and infrastructure supporting handwash behavior among children with special needs in Bukittinggi in 2020. **Design/methodology/approach:** The type of research was descriptive study. Populations of this study were children with special needs, 34 children were chosen as samples. Data were analyzed by univispaate analysis. **Findings:** Results show that knowledge of handwash among children is low among 25 children (73.5%), attitude is less good among 27 children (79.4%), action is less good among 29 children (85.3%), and infrastructure is less supporting among 22 children (64.7%). **Research limitation:** This research was conducted during the Covid pandemic period so that data was collected through questionnaire and google form. **Originality/value:** This research was conducted by using interviews with children use quesionnaire.

Keywords: hands wash with soap; knowledge; attitude; action; infrastructure; six steps of handwash

1. Introduction

Children with special needs have obstacles in intelligence, language delays and delays in carrying out activities. Children with special needs experience difficulties in emotions and behavior (Roberts RM, et al., 2016). Children with special needs are very vulnerable to transmitting diseases. Some habits that can affect children's health behaviors in children, especially in school are the child's breakfast patterns, hand washing habits, ear hygiene, skin hygiene, hygiene, hair hygiene, bathing and also the habits of children to consume unhealthy (Pal and Pal, 2017).

One of the efforts to improve children's health is washing hands. Children need to maintain cleanliness in hand washing can improve the quality of life of children (Gisely Vionalita, 2017) Washing hands 6 steps with soap is very important for children to avoid disease and adopt clean and healthy living habits. Reducing disease transmission in important children do by maintaining hand hygiene. Human

hands are one of the chief vehicles for transmitting infections especially diarrheal and respiratory diseases which are the leading causes of infant and under-five mortalities in developing countries).

Based on Riskesdas 2018 data, the proportion of hand washing behavior in children under 10 years is 40% in the West Sumatra region. Based on data from WHO, it is stated that children experience diarrhea and also respiratory tract infections. Washing hands with soap, especially after defecating, after disposing of children's feces, before preispang food, before feeding children and before eating, has an impact on the incidence of diarrhea. Reducing the incidence of diarrhea by 47%. Diarrhea is the leading cause of death in infants (31.4%) and children under five (25.2%)(Kemenkes RI, 2013). Approximately 162,000 children die from diarrhea every year or about 460 toddlers per day. While the results of household health surveys in Indonesia diarrhea is the second leading cause of death in infants, number three for infants, and number five for all ages. Every child in Indonesia has episodes of diarrhea as much as 1,278 per 1000 reduce to 1,100 (Kemenkes RI, 2011). The diarrhea morbidity rate for children under five years 2000-2010 did not show an increase or decrease (fluctuate). In 2000, the infant morbidity rate was 1,278 per 1000 falling to 1,100.

ISPA is a major cause of morbidity and mortality of infectious diseases in the world. Nearly four million people die from ISPA each year, 98% of them are caused by lower respiratory tract infections. The mortality rate is very high in infants, children (WHO, 2014). ISPA causes 150 thousand babies or toddlers to die every year, or 12,500 victims per month, or 416 cases a day, or 17 children per hour, or one baby every five minutes. Most cases of ISPA occurred in children aged less than 1 year. 2 The prevalence of ISPA incidence in Indonesia according to the results of the 2018 Basic Health Research (RISKESDAS). The prevalence of ISPA in West Sumatra Province is the 9th highest ISPA incidence of 34 provinces in Indonesia.

Handwashing with soap is one such behavior that is important in reducing exposure to pathogens, and in school-age children, handwashing helps reduce absenteeism through the prevention of respiratory and diarrheal diseases. (Naluonde T, et al., 2019).

Hands Washing with soap can clean the dirt that sticks to the skin, nails and fingers. causes germs to pass from one child to another one of which is diarrhea. (Watson J, et al., 2019). The most important fact at this time is that washing hands with soap can prevent yourself from the covid 19 virus. Respiratory tract diseases that are spread through splashes contain viruses. the most frequent displacement of the hand. One of the most important steps children take is washing their hands with soap and water in 6 steps (Unicef, 2020).

Children do not know how to wash their hands properly and correctly due to lack of information. The habits of each child are different in doing play, school, and other activities. The habit of washing hands with 6 steps with soap needs to be applied. Seeing children's habits in applying personal hygiene, namely washing hands in 6 steps with soap. Children's knowledge needs to be explored in washing hands so that children avoid disease. Washing hands with soap and water can be done so that children avoid disease (Dagne et al., 2019). One way to do this is by looking at the knowledge, attitudes, actions, and infrastructure that support children to wash their hands in 6 steps with soap.

In addition to having the right resources and facilities, the implementation of student hygiene in washing hands is influenced by students' knowledge and attitudes towards cleanliness. The initial survey to special schools obtained data on children who did not wash their hands, namely lazy, in a hurry to take a break, the time needed to play, students' understanding of the use of soap and clean water needed to be assessed to see clearly how the description of children's hygiene behavior was. Hygiene behavior can minimize the spread of germs and thereby prevent diarrhea, acute respiratory infections such as influenza and skin infections. This study aims to describe the knowledge, attitudes, actions and infrastructure that support children to wash their hands in 6 steps with soap.

2. Literature Review

Disability is basically a condition of losing normality from function or anatomy structures, somebody's psychology and physiology. With disability, a person has limitations and different capabilities from a normal person so that it will affect the flexibility of physical activity, confidence and self-esteem, relationships with others and with the environment (Salim, A., 2013).

The PHBS (Clean and Healthy Life Behavior) indicator, one of which is washing hands with running water and soap, is a set of behaviors that are carried out because of the awareness of learning outcomes,

which allows individuals or families to maintain and maintain health and play an active role in creating a healthy community One of the main pillars in Healthy Indonesia and is one of the strategies to reduce the burden on the state and society, namely PHBS (Risnawaty, 2016).

According to the Ministry of Health, PHBS stands for Clean and Healthy Living Behavior. Meanwhile, the definition of PHBS is all health behavior that is carried out because of personal awareness so that the family and all members are able to help themselves in the health sector and have an active role in community activities.

The American Journal of Infection Control suggests that hand hygiene is a process in preventing the transmission of infection in health care, which mechanically removes hand waste (Ningsih, SSR, et. Al., 2017).

3. Methodology

This research is a quantitative study using a descriptive design. conducted from May to August 2020 at the extraordinary school in the city of Bukittinggi. has been obtained by ethical clearance from the military hospital Padang with number: 186 / KEPK / 2020. Sampling was started by identifying groups of children with special needs as many as 34 respondents using inclusion criteria after the groups were identified, then meeting with parents about the questionnaire to be distributed and also conducting home visits to find out and make observations of children in washing hands. The questionnaires were distributed face-to-face and online and then traced and analyzed the factors that influenced the children to wash their hands in 6 steps with soap. pre-tested questionnaire. Data were entered into SPSS for further analysis. Results are presented with simple frequencies, percentages and means for descriptive vispaables and using univispaate analysis.

4. Result

The data analysis used by researchers in quantitative methods is carried out using a computerized process, namely editing, coding, entry, cleaning, processing. Quantitative data produces the characteristics of child respondents with special needs who attend special schools, where a questionnaire is given regarding children's habits in washing hands. The frequency distribution of respondent characteristics is seen by age and gender.

Table 1. Table of frequency distribution of patient characteristics (n = 34).

No	Demographic Characteristic	F	%
1	<i>Gender</i>		
	male	20	58.8
	woman	14	41.2
	<i>Total</i>	13	100.0
2	<i>Age</i>		
	9 Years	3	8.8
	10 Years	4	11.8
	11 Years	8	23.5
	12 Years	6	17.6
	13 Years	6	17.6
	14 Years	7	20.6
	<i>Total</i>	34	100.0

Based on table 1, it was found that the patient characteristics based on age were mostly in the age range of 11 years and 8 people (23.5%). Most of the respondents were male (58.8%). Univispaate analysis was performed to describe the characteristics of each research vispaable. In this study, univispaate analysis was carried out to determine the ability of children to wash their hands with soap.

Table 2. Frequency distribution of children's hand washing categories (n = 34).

Frequency distribution	n	(%)
<i>Children's knowledge in washing hands</i>		
Low	25	73.5
High	9	26.5
<i>Children's attitude in washing hands with soap</i>		
Good	7	20.6
Bad	27	79.4
<i>Actions of children in washing hands</i>		
Doing	5	14.7
Not Doing	29	85.3
<i>Children's infrastructure for washing hands</i>		
Supporting	22	64.7
Less Supporting	12	35.3

Based on the data above, it was found that the level of respondents' knowledge in washing their hands with soap was mostly in the low category (73.5%). The attitude of respondents when washing their hands with soap was mostly in the bad category (79.4%). Most of the respondents' actions in washing their hands with soap were in the non-doing category (85.3%). The facilities and infrastructure for washing hands using soap are at most adequate (64.7%).

5. Discussion

Based on the first quantitative table, it is found that most of the characteristics of children are male. Based on age at most at 11 years of age. Distributed questionnaires to parents and accompanied by children. Based on the collected data, it is found that children have not washed their hands properly and correctly. The results of the research are about knowledge, attitudes, actions, and infrastructure for children to wash their hands. Some of the data is also obtained online where 73.5% of children have low knowledge. The children's knowledge explored in this study is related to when children wash their hands, children wash their hands using only water or with soap.

In this case, what is meant by good quality of life means that most children have a low level of knowledge in washing hands with soap. This is proven in this study that when the children were interviewed regarding the knowledge of children's hand washing, they were not able to distinguish how effective hand washing techniques were, some children did not wash their hands with running water, the children did not know when to wash their hands. Children need to be taught how to wash their hands when their hands are exposed to germs, dry their hands with clean drying.

Other quantitative data that was produced were that the respondent's attitude in washing their hands with soap was mostly in the bad category (79.4%). Meanwhile, based on the overall research results regarding children's attitudes in washing hands, namely children feel that washing hands is not yet important, children wash their hands not with soap, but if their hands are dirty, children wash their hands as they are not with 7 steps or steps to wash hands. Hand washing compliance in school children can be improved such as before eating or after food, after contact with feces, or while the child has the flu.

Vivas AP, Gelaye B, Aboset N, Kumie A, Berhane Y, Williams MA. (2010) say that 52% of students were classified as having adequate knowledge of proper hygiene. Most students reported hand washing before meals (99.0%), but only 36.2% reported using soap. Although 76.7% of students reported that washing hands after defecation was important, only 14.8% reported actually following this practice. Students with adequate knowledge of proper hygiene were more likely to have clean clothes (AOR 1.62, CI 1.14-2.29) and to have a lower risk of parasitic infection (AOR 0.78, CI 0.56-1.09) although statistical significance was not achieved for the latter

Syafril (2015) say that 21% of the respondents' practices of hand washing was in good level. Most of the respondents did not wash their hands according to the 7 steps of correct hand washing. Vionalita

(2017) say that proportion on PHBS in poor category is 65 (51.2%) and in excellent category 62 (48.8%). These data indicate that the children in that school still have not practice the clean living habits. Obtained from the score of the questionnaire, the lowest one is for the habit of bringing food from home.

Based on the data obtained, the respondent's actions in washing hands with soap were mostly in the non-performing category (85.3%). Where children do not do the hand washing steps. When washing hands, the child only rinsed for one second with ai only without scrubbing, and some children rubbed their hands, but only with one step. children do not know what steps are good and correct in washing hands.

The positive percent of coli-form on the hand swabs in intervention group (2.00%) were significantly lower than that in control group (9.45%) at the end of year . (Guo N, Ma H, Deng J, Ma Y, Huang L, Guo R, Zhang L. 2018)

The action taken by children in washing children's hands was only washing their hands by doing the first step and the second only the children did not do the hand washing stage, namely with 6 steps. Internationally, the implementation of correct hand hygiene is the "six-step protocol" developed by WHO, WHO has a six-step protocol element: 1. palm, 2. palm, back, 3. between fingers, 4. fingers sewing, 5. thumb rubbing, 6. fingertips (Milassin M, Pechó Z, Böröcz K, et al., 2010).

According to research conducted by Lopez-Quintero C, et al., (2009) said that schools have difficulty in supporting facilities for washing hands where in school 33.6% of children wash their hands with soap and clean water before eating or after using the toilet, 7% of students report regular access to soap and clean water at school.

The questionnaire given to children illustrates the child's low knowledge of washing hands. Studies conducted to assess the cleanliness of children during activities using questionnaires and / or observation techniques. A limitation with the questionnaire study is that respondents often give "inappropriate answers" to the questions asked; However, there are some answers that may not reflect actual practice. This is especially so if the question of the truth causes embarrassment. An alternative approach is to combine a questionnaire study with an observational study.

In the correct application of washing hands, children need interaction and attention in helping children to increase knowledge of children's attitudes and actions. Hand washing facilities are adequate at school but at home there are a number of inadequate children. Based on observations of future school-based health and hygiene education programs should include strategies for involving family members, particularly mothers and siblings.

This is in accordance with research conducted by (Lehotsky Á, 2017) which states that the results of the study at the average age of participants were 13.4 years, only 3% of students met the requirements for washing hands. The Centers for Disease Control and Prevention definition, which includes always washing your hands for at least 20 seconds when entering someone's home and after blowing your nose, coughing, and other critical episodes of germ contamination.

The Ministry of Health found that study participants in rural Ethiopia had poor hygiene knowledge, attitudes, and practices (KAP) (Vivas AP, et al., 2010). About 60% of the children surveyed did not know about the possibility of disease transmission through human waste. Recently, hand washing facilities, apart from awareness and knowledge of proper hygiene, have also caused some changes in behavior and attitudes, however the prevalence of hand washing remains low in this region (WHO, 2003).

6. Conclusion

Based on the conclusions from research conducted in special schools, it was found that children's knowledge was low in washing hands with 6 steps using soap, children's attitudes were low in washing hands, and children did not take 6 steps in washing hands. It is suggested to carry out further research on the application of hand washing to special school children. Where the limitation in this study is the special needs children in the category.

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