Perception About Hand Hygiene To Prevent Covid-19 Transmission - An Adolescence Survey

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Abstract

Mortality rates for Covid-19 in Indonesia are about 8.9 %, which is the rate that was the highest in South-East Asia. Research at Rutgers University, New Jersey, of 48 children and adolescents, more than 80 percent of patients had severe conditions. More than 20 percent of patients had organ failure, between one or two organs at once, due to Covid-19 infection. More than 40 percent of patients need a breathing apparatus. One of the efforts to prevent the spreading of Covid-19 is doing hand hygiene following protocol Covid-19. Research objectives are to find an adolescent perception to hand hygiene as an effort to prevent the spread of Covid-19. The type of research was descriptive-analytic. Populations were adolescence over 12 to 18 years old. By using simple random sampling, the samples were found with 82 respondents. The data were collected by questionnaire about the perception of doing hand hygiene to prevent the spreading of Covid-19. The data analysis used is descriptive of the frequency and percentage. The research results obtained 63.41 % of adolescents have negative perceptions, and 36.58 % of adolescents with a positive perception. The lowest perception (46.04 %) is on the item about the need to wash their hands before and after doing an activity. It is hoped that health workers can make an approach through health education and socialization of hand hygiene to adolescents to prevent the spread of Covid-19. And It better in the future can assess all adolescents with qualitative method or mixed with more participants included.

Keywords: Covid-19, Hand Hygiene, Perception

Introduction

On March 12, 2020, World Health Organization (WHO) declared Covid-19 as a pandemic. As of March 29, 2020, there were 634,835 cases and 33,106 deaths worldwide. Meanwhile, in Indonesia, 1,528 cases have been confirmed as positive for Covid-19 and 136 cases of death (Susilo et al., 2020). The first Covid-19 was reported in Indonesia on March 2, 2020, in two cases. As of March 31, 2020, data shows that there were 1,528 confirmed cases and 136 deaths. Therefore, the mortality rate for Covid-19 in Indonesia was 8.9%. This figure is the highest number in Southeast Asia (Susilo et al., 2020).

Head of Riau Health Service reported on March 2020 over the 12 districts/cities have the highest number of Covid-19 cases in Pekanbaru with 296 patients on supervision, with details of 136 people having been declared cured and went home while 125 people were still being treated and 35 people were reported dead. There are 12 districts, with at least two people in Indragiri Hulu (Inhu) Regency (1 person recovered and one person is still being treated and referred to Pekanbaru). In Kuantan Sengingi (Kuansing) district, the total number of patients under supervision is 11 people (2 are still being treated, six returned home or healthy, and three people died). Indragiri Hilir Regency (Inhil) totaling 15 people (five people still being treated, seven people recovering, and three people dying), for Pelalawan Regency, a total of 40 (returned and healthy 23 treated 12 and five people died), Meranti Islands Regency there are five people (2 hospitalized and healthy three people) (Detiknews, 2020).

A spokesperson for the task force team for the acceleration of handling the Corona Virus or Covid-19 in Indragiri Hulu District Government, Jawalter, said as of April 29, 2020 data from the local Health Service, until now noted there was a cumulative people with monitoring of March 22 to April 28, 2020, there were 394 people with details of people in monitoring were 43 people (10.91%) and people who completed monitoring were 351 people (89.09%). While the people that were examined rapidly were 269 people with 268 negative results and one reactive (positive). Next, for the cumulative traveler from March 28 to April 28, 2020, as many as 3,678 people with details of traveler in monitoring 1,109 people (30.19%), traveler person has completed observing 2,569 people (69.85%), patient on supervision was one person and 0 confirmed positive cases of the coronavirus (Gatra.com, 2020).

WHO's recommendation in dealing with the COVID-19 outbreak is to carry out essential protection, which consists of washing hands regularly with alcohol or soap and water, keeping a distance from someone who has symptoms of coughing or sneezing, practicing etiquette coughing or sneezing, and seeking treatment when they have a complaint that fits the suspect category. The recommended distance that must be maintained is one meter.122 In patients with a suspicion of COVID-19 must also be given a minimum length of one meter from other patients, given a surgical mask, taught coughing/sneezing etiquette, and taught how to wash hands (Susilo et al., 2020).

Public Relations of Universitas Pembangunan Nasional Veteran Jakarta (UPNVJ), March 23, 2020, stated that in the State Defense Preparedness Efforts in Corona Virus Prevention it must ensure the availability of facilities for washing hands in various strategic locations. Failure to maintain hand hygiene is the leading cause of infection and can lead to the spread of multi-resistant microorganisms in the surrounding environment. According to UPNVJ Public Relations (2020), maintaining hand hygiene by washing hands is the most practical and effective method of preventing infection (Nuryanti, 2020).

The American Journal of Infection Control suggests that hand hygiene is the best method to prevent infection transmission in health care. Still, adherence is usually suboptimal, besides changing the culture of washing hands using a violation certificate to be a significant factor in improving hand hygiene compliance (Ningsih et al., 2017). Madrazo (2009 in Nurani, 2017) said that hand hygiene is essential in preventive measures because it is more effective and low cost; it is estimated that by implementing hand hygiene, reducing HAIs is 50%. The same thing is also expressed by SMS (2009) that the behavior of hand hygiene is one of the most important,

inexpensive and straightforward efforts to prevent the prevalence of HAIs and the spread of anti-microbial resistance. Therefore, hand hygiene is the most important aspect to prevent the transmission of pathogenic micro bacteria and prevent HAIs (WHO, 2009: Nurani, 2017).

According to Walgito (2010), perception is an impression of an object obtained through sensing, organizing, and interpreting the object received by individuals so that it is something meaningful and an integrated activity within the individual. This opinion is the same as before, but this opinion further explains the process of occurrence, namely after absorption, the images obtained through the five senses are then organized, then interpreted so that they have meaning or meaning for the individual. At the same time, the process of the perception is one set of activities within the individual (Rorong & Palar, 2014). Diina (2013) states that perspective has two aspects, namely affective and cognitive. The cognitive element refers to the response of an individual's feelings in positive or negative assessments measured through emotions, specific feelings, moods, and evaluations. The cognitive aspect refers to the mental processes and knowledge structures involved in a person's response which can be measured by looking at how individuals interpret, give meaning, and understand behavior based on their personal experiences.

Children and adolescents are at greater risk of developing complications and severe conditions if exposed to Covid-19. For example, in research at Rutgers University, New Jersey, of 48 children and adolescents, more than 80 percent of patients had extreme conditions. More than 20 percent of patients had organ failure, between one or two organs at once, due to Covid-19 infection. In addition, more than 40 percent of patients need a breathing apparatus (Nursastri, 2020).

Based on the facts in the field, there are still people, especially teenagers, who still don't care about hand hygiene in daily activities. Many teenagers still think that hand hygiene is ordinary; this perception can affect washing compliance behavior. It recommended hands to prevent infection. Washing hands is very important to avoid disease. This study aims to determine adolescents' perceptions about hand hygiene during the Covid-19 outbreak in Pangkalan Kasai District, Seberida District, Indragiri Hulu Regency.

Research Method

This study used a quantitative descriptive-analytic intending to know the perceptions of respondents, in this case, adolescents, about implementing hand hygiene to prevent the spread of Covid-19. The study population was 456 adolescents in one of the Indragiri Hulu sub-districts. This location was chosen because it has sufficient research subjects and easily accessible. While the sample was taken using a simple random sampling with 82 adolescents using "lottery." Eighty-two respondents with the appropriate identity were selected as a sample of the study; the researcher visited respondents to their respective locations with the help of the youth leader there. The instrument used was a questionnaire about adolescents' perceptions using hand hygiene to prevent Covid-19. The questionnaire was created and modified from Ministry of Health Republic Indonesia (2014), which contained 16 positive statements and four negative statements using a Likert scale with the following ratings: "Strongly Agree" rated 4, "Agree" is rated as 3, "Disagree" is assessed as 2, and "Strongly Disagrees" is evaluated as 1. In addition, validity and reliability tests were carried out on 20 adolescents in Kuantan Sengingi with 0,378 for validity and 0,694 for reliability. The data analysis used is descriptive of the frequency to see a description of respondents' perceptions about the implementation of hand hygiene to prevent the spread of Covid-19. Perception is categorized into negative perception if ≤ mean and positive perception if > mean (Azwar, 2010). This research has gone through an ethical test conducted by the Ethics Committee of Fort De Kock University with letter number 816/LPPM/UFDK/V/2020.

Research Results

The results of this study have passed the

Kolmogorov-Smirnov normality test, and it is known that the Asymp. Sig (2-Tailed) significance value of 0.851 is more significant than 0.05. So following the basis of decision making in the Kolmogorov-Smirnov normality test, it can be concluded that the data is usually distributed. Thus the assumptions or requirements for normality in the regression model have been met.

Table 1. Distribution of Adolescence Perceptions Regarding Hand Hygiene in Efforts to Prevent Covid-19

Perception	Frequency (F)	Precentage (%)
Negative	52	63,41
Positive	30	36,58
Jumlah	82	100

Respondents had the most negative perceptions of 52 respondents (63.41 %), while favorable perceptions amounted to 30 respondents (36.58%).

Tabel 2. Distribution of implementation of hand hygiene in efforts to prevent the spread of Covid-19 based on a questionnaire

Variable	A	Mean	SD
Washing hands is the most important basic technique in preventing coronavirus infection	1	3.6951	0.46319
Before direct contact with others, I should wash my hands or decontaminate them with an antiseptic hands rub	8	3.4146	0.49569
After direct contact with other people, I have to wash my hands or decontaminate them with an antiseptic hands rub to prevent being infected with the coronavirus	2	3.6707	0.54557
Wash your hands before and after eating	3	3.5732	0,49766
If hands are visibly dirty, wash your hands with running water and soap	10	3.3659	0,53315
If your hands are not dirty, use a hand sanitizer to prevent coronavirus infection	11	3.3659	0,50947
After traveling, you must wash your hands or use a hand sanitizer to prevent being infected with the coronavirus	7	3.4390	0,49932
Washing your hands using soap is better than not using it	12	3.3415	0,50233
No need to wash hands before and after activities	20	2.2073	0,55465
Washing your hands doesn't take long	18	2.9390	0,55216
Hand washing is done after using the toilet	6	3.4634	0,50173
Washing your hands after coughing or sneezing must be done to prevent the coronavirus	13	3.3293	0,52246
Wash your hands after touching pets to prevent coronavirus infection	15	3.2683	0,52231
Wash your hands after taking out the trash	17	3.1585	0,45730
Washing hands after shaking is very good for preventing coronavirus infection	5	3.5122	0,50293
Wash hands with running water and soap	14	3.2927	0,48401
Washing your hands before touching food is excellent for preventing coronavirus infection	9	3.4024	0,49341
Washing hands properly takes a lot of time	19	2.8659	0,68064
Washing hands after touching the surface of objects is good for preventing coronavirus infection	16	3.2317	0,45267

Wash your hands with clean water	4	3.5610	0,49932

Based on the table above, it is known that the mean values obtained ranged from 2.20 to 3.69, which means that adolescents realize that washing hands can minimize the transmission of coronavirus infection. The highest perception of adolescents is about washing hands before direct contact with others. Respondents responded positively, and this is with a mean of 3.6951 (SD = 0.46319). This is also shown in the negative statement, which has a standard of 2.2073 (SD = 0.55465). Respondents also expressed positive perceptions, especially washing their hands after direct contact with other people, washing their hands before and after eating, washing their hands using clean water, and washing pliers after using the toilet.

Discussion

Hand hygiene is the most important basic technique in infection prevention and control (Potter & Perry (2003) Zulpahiyana (2013)). According to Van and Enk (2006) in Zulpahiyana (2013), hand hygiene is the most effective way to prevent nosocomial infections. The purpose of hand hygiene is to remove dirt and organisms that stick to the hands and reduce the total number of microbes.

Based on this research, it is known that many adolescents have negative perceptions about hand hygiene. The respondents did not wash hands because washing hands properly takes a lot of time, no need to wash hands before and after activities, the sink is not available, and the existing sink is also doubtful cleanliness, soap is not available for washing hands. The research data still shows a lack of awareness among teenagers about the importance of hand hygiene. Teenagers know that hand hygiene has the most significant impact on the declined risk of transmission and be more confident that wash your hands with soap and running water kills germs.

Perception is influenced by internal factors such as age. The elder enough, the maturity and one's strength will be more mature in thinking and act. Therefore, the development phase of adolescence is the center of attention. This is because adolescence is a period of transition from childhood to adulthood. However, they have not held responsibilities like adults (Willis, 1994: Soetjiningsih 2010). Likewise, hand hygiene in adolescents is still not a habit. Therefore, it is necessary to remind adolescents about the importance of hand hygiene in terms of how to wash their hands properly and then wash their hands properly.

According to Walgito (2010), perception is an impression of an object obtained through sensing, organizing, and interpreting the object received by individuals. It is something meaningful and is an activity integrated within the individual. In this research, the process of adolescent perceptions of washing hands to prevent the spread of Covid 19 begins with the sensory filtering process on how to wash hands properly and when to wash hands properly—then organizing information about washing hands to prevent the spread of covid 19 so that it has meaning for adolescents. Complex information will turn into simple details and will be seen from adolescents' reactions when washing their hands as a form of habit.

According to Wong (2008), cognitive changes in adolescent development make them think concretely. Therefore, they will pay attention to the possibilities that will happen to create high hopes for hand hygiene after knowing the consequences of not washing hands will impact the Covid-19 incident. Following Notoatmodjo (2010) expression, perception is the experience of objects, events, or relationships obtained by summarizing information and interpreting it.

In addition, negative perceptions are higher than positive perceptions because teenagers are aware of hand hygiene. However, external factors such as hand washing facilities in the community are still lacking. Or it is caused by the lack of time to wash their hands in the proper steps so that most people prefer to use hand sanitizers instead of washing their hands using water.

This research is in line with Nurani et al. (2017), entitled an overview of hand hygiene adherence to hemodialysis nurses in public hospitals. This study showed that the hand

hygiene compliance of the hemodialysis unit nurses was 35%. However, the compliance rate is still insufficient. It does not meet the standards set by the Infection Control Unit at Surabaya General Hospital, which is 100% and still does not meet the compliance standard according to WHO (40%). The low hand hygiene compliance rate is caused by the low participation of the essential Infection Control Unit in training and the lack of availability of hand hygiene facilities at the Hemodialysis Unit of this General Hospital.

Another external factor that affects adolescent perceptions of hand hygiene is the frame of experience. Previous experiences cause adolescents with negative perceptions in washing hands that are still not correct. Habits in the family are also an external factor in the formation of adolescent perceptions. If hand washing has been taught since childhood in the family, washing hands becomes a meaningful experience for adolescents because it is used to be done in the family and has become a culture in everyday life.

This study is not in line with Yogiswara et al. (2018) entitled Hand hygiene behavior of health workers at Sanglah Hospital in 2018; from a total of 96 research samples, 68.7% had a positive perception of hand hygiene. Women tend to be more obedient than men to implementing hand hygiene, and accessible doctors are the profession with the lowest adherence to hand hygiene. This study illustrates that health workers who already have previous experience of correct hand washing cause their perception to be optimistic about hand washing.

The highest respondent's perception about the implementation of hand hygiene to prevent the spread of Covid-19 is about washing hands before direct contact with other people. Respondents responded positively, and this is with a mean of 3.6951 (SD = 0.46319). Teens know that washing hands before contact with other people will kill viruses that are likely to stick to hands and minimize disease transmission to others and vice versa. Adolescents also realize that the possibility of contracting the disease, especially the coronavirus after contact with other people, can be done by washing hands or decontaminating with an antiseptic hand rub. Teens also know that there is a possibility of a virus on their hands, so washing their hands before eating will eliminate the virus and minimize the risk of the virus entering the body. Finally, teens realize that dirty hands have many germs and viruses; washing hands with running water will be more effective than water in a container.

This is also shown in the negative statement, a mean of 2.2073 (SD = 0.55465). According to the researcher's analysis, the negative perception of adolescents about hand hygiene was because adolescents thought that washing hands only grew as a compulsory activity before eating. This is due to the busy activity of adolescents who think that washing hands that takes a long time will hamper their movements. Even to do handwashing in the proper steps takes almost 2 minutes. For people who have busy activities, this will greatly hinder their activities, so they perceive that hand sanitizers are more effective than washing their hands. This can happen if it is related to Wong's words that adolescence results in identity formation, where external factors determine their attitude. According to Wong's (2008) statement, adolescents can detect logical consistency or inconsistency in a group of words and evaluate the system.

Conclusion

Research conducted on 82 adolescents found that most adolescents (63.4%) had negative perceptions and (36.58%) had positive perceptions about Hand Hygiene to prevent Covid-19. The highest respondent's perception about the implementation of hand hygiene to prevent the spread of Covid-19 is about washing hands before direct contact with other people. And the lowest percentage were statements about not needing to wash hands before and after doing activities. The recommendation is that this research is continued with a large sample and with inferential statistics. Besides, it is hoped that health workers can approach health education and socialization of hand hygiene to adolescents to prevent Covid-19. Adolescents need to increase self-awareness about the importance of hand hygiene in daily activities, especially for teenagers who have active outdoor activities, searching for

or updating information about hand hygiene through gadgets.

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