

THE RELATIONSHIP BETWEEN KNOWLEDGE, ATTITUDE AND TRAINING OF EMPLOYEES REFILL DRINKING WATER DEPOTS WITH IMPLEMENTATION OF SANITATION HYGIENE REFILL DRINKING WATER DEPOTS IN THE WORKING AREA OF KENALI BESAR PUBLIC HEALTH CENTER

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ABSTRAK

Based on data from the Jambi Provincial Health Office in 2021 drinking water depots that meet health requirements have not reached the target of 92.6% of the 100% target. Sanitary hygiene is an effort made to control the risk factors for contamination of drinking water. The purpose of this study was to find out the relationship between knowledge, attitudes, and training with the implementation of sanitation hygiene at the drinking water depot in the working area of the Kenali Besar Health Center in 2022. This research uses a quantitative research design with a cross-sectional research design. The research was conducted in the working area of the Kenali Besar Health Center in August-February 2023. The population and samples of this study were 51 employees of the Kenali Besar Health Center (DAMIU) in the Work Area of the Kenali Besar Health Center. The results of the study showed that the application of sanitation hygiene was in the proper category (52.9%). The statistical test results showed that the variables were knowledge ($p=0.000 < 0.05$), attitude ($p=0.000 < 0.05$), and training ($p=0.01 < 0.05$). Conclusion, there is a relationship between knowledge, attitudes, and employee training with the application of sanitary hygiene at refill drinking water depots (DAMIU) in the Working Area of the Kenali Besar Health Center

Keywords: *Refill Drinking Water Depot (DAMIU), Kenali Besar Health Center, Sanitation Hygiene*

1. Introduction

The development of the drinking water business continues to run very rapidly in Indonesia. The need for drinking water which is consumed every day by the community has never experienced a lack of interest considering that water is the main source of life. Refill Drinking Water Depot (DAMIU) is an economical solution for fulfilling drinking water in society. The unstoppable need for daily consumption of drinking water is the reason why the DAMIU business is in great demand among the public. However, given the relatively low price, it raises doubts about the quality of drinking water that is safe and ideal for the human body produced by DAMIU. Based on previous literature studies, it is described that there are still problems related to the cleanliness and safety of drinking water produced by DAMIU and distributed to the public. In particular, with the large number of depots that have been established in the community, it is difficult for them to exercise control over several depots, especially depots that commit fraud regarding the implementation of quality and cleanliness. One of the most frequently violated hygiene procedures is the procedure for filling and filtering drinking water. In addition, many depots still cover up information regarding the water sources they have used. Thus, there are still many doubts regarding safe sanitation related to drinking water depots circulating in the market. If there is drinking water that is unhealthy and does not meet drinking water standards, of course it will be very risky to health.[1]

Received February 16, 2023; Revised May 22, 2023; Accepted June 10, 2023

The drinking water depot itself includes all water that is good for consumption by the body with regular provisions in the 2010 Permenkes No. 492 concerning Drinking Water Quality Requirements. Based on these regulations, it is said that drinking water that meets the requirements includes drinking water that does not endanger health and can be consumed directly, and every provider of drinking water is obliged to guarantee the safety of its production. [2]

The World Health Organization (WHO) concludes that the need for water for people in developed countries in 2021 can at least reach 60,120 L in one day for developing countries.[3] Indonesia itself only achieves 72.55% of access to clean water which feasible, this would of course be very strange if we only look in the mirror at areas with cities that are categorized as advanced without paying attention to some of our regions which are still having difficulties in achieving clean water. This figure is of course still far below the achievement set globally through the SDGs of 100%. Problems with cleanliness and access to water are things that still really need attention in Indonesia, especially in areas that are not yet classified as developed. At least as many as 33.4 million people in Indonesia still have difficulty getting clean water.[2]

Based on data from the Ministry of Health for 2021, in Indonesia there are five provinces with the highest percentage of drinking water contaminated with E.Coli, namely Central Kalimantan Province with 57.94% followed by Yogyakarta area with a percentage of 46.66%, DKI Jakarta Province with a percentage of 43.57%, North Kalimantan with a percentage of 37.14%, West Sumatra with a percentage of 35.91%, while Jambi province is included in the achievement of access to good drinking water with a percentage of 80%. Even so, this achievement is still not perfect, because in essence access to clean water, especially for drinking, must be felt by everyone with the achievement having to reach 100%.[4]

Based on data from the Jambi Provincial Health Office in 2021 drinking water treatment facilities that meet health requirements have not reached the target of 92.6% of the target set at 100%, but have not received satisfactory results and decreased compared to 2020 which amounted to 93.8%. There are still many drinking water treatment plants that do not meet environmental health requirements, both in terms of sanitation hygiene and in terms of physical buildings.[4] Hygiene sanitation itself is an effort that guarantees the fulfillment of environmental health including control of touch factors, places, and equipment. Which is in accordance with Permenks Number 43 of 2014 concerning hygiene and sanitation of drinking water depots.[5]

Poor sanitation hygiene of drinking water depots can reduce the quality of drinking water and cause health problems such as diarrhea, cholera, dysentery, typhus and polio. Based on the Regulation of the Minister of Health of Jambi Province, 10 diseases caused by water contamination are Diarrhea, DHF, Cholera, Typhus, Dysentery, Hepatitis A, Trachoma, Typhoid, Polio and lead poisoning. Diarrhea has the highest ranking of the 10 diseases, in 2020 there were 5,834 cases in Jambi City and in 2021 it decreased to 3,594 cases. The Kenali Besar Health Center is one of the health centers with high cases of diarrhea, which ranks fifth with 290 cases in 2020.[6]

The knowledge possessed by the Drinking Water Depot employees affects the level of sanitation hygiene at the drinking water treatment plant. Based on the results of previous research conducted by Levri Qolin (2018) in the Working Area of the Andalas Health Center, East Padang District, the results showed a significant relationship between knowledge of depot

sanitation. The attitude of depot employees can pose health risks, meaning that the attitude of depot employees who are not good will have an impact on the quality of drinking water.[7] Likewise with the results of research from Dahrini, et al (2021) regarding the description of knowledge, attitudes, education and training of depot employees. It is known that the majority of depot employees have not received or attended any training related to sanitation hygiene. However, employee education is quite good.[8]

Based on the results of interviews conducted by researchers with health workers at the Kenali Besar Health Center, it is known that the total population in the work area of the Kenali Besar Health Center is 61,726 residents and 95% of the population uses drinking water from depots for cheap and practical reasons. The development of the era that makes humans tend to take an action that facilitates their activities. Thus, drinking water depots are an option for providing practical and inexpensive drinking water. in the unfavorable category, the location of the depot which is still contaminated with street dust because it is on the side of the road, the source of water being managed is unclear how to standardize the source, testing of the quality of drinking water which is not carried out regularly. Some of these things can lead to incompatibility with the application of sanitary hygiene at the depot.[9]

Based on the results of an initial survey conducted by researchers at 10 refill drinking water depots in the working area of the Kenali Besar Public Health Center, there are various depot raw water sources such as PDAM, dug wells and drilled wells. Meanwhile, in terms of sanitation hygiene, the 10 drinking water depots are also still not good. there are still gallon cleaning tools that are rarely used and stored for more than 1 x 24 hours, namely 0.6%. Of course, this problem can cause microbiological contamination in refill drinking water, so bacteriological testing, especially for coliform bacteria at refill drinking water depots, needs to be implemented to prevent diseases caused. This problem occurs because one of the results is a lack of supervision in the field by health workers.

The total number of refill drinking water depots in the Kenali Besar Health Center work area is 58 refill drinking water depots with a percentage of 4.48% whose sanitation hygiene is not appropriate. Based on the description above, the researcher is interested in conducting research with the title "Relationship of Knowledge, Attitudes and Training of Refill Drinking Water Depot Employees with the Implementation of Sanitary Hygiene Refill Drinking Water Depots in the Work Area of the Kenali Besar Health Center in 2022".

2. Literature Review

2.1. Drinking Water

Drinking water is water that has gone through a processing process and has met standards that have been adjusted to drinking water quality standards that have been regulated by law. Good drinking water fulfills the elements of health and safety in terms of consumption, namely in accordance with the provisions governing the physical, chemical, bacteriological and radioactivity factors of the water itself. Where drinking water is used as a source of body builder intake needs.[1]

2.2 Refill Drinking Water

Refill drinking water is water that can be consumed because it has gone through the ozonization ultraviolet irradiation stage and the filtering stage in order to obtain clean and safe water for consumption by the human body and various other purposes with clean water. The drinking

water depot business is very much in the community with a lot of enthusiasts in this business who also fulfill many requests every day. Technological developments have changed the application of consumption management which is usually traditional and cooked to modern by using filtration to produce safe drinking water.[10]

3. Research Methodology

The type of research used in this research is a quantitative type using a cross-sectional research design. The location of this research was carried out in the work area of the Kenali Besar Health Center and carried out in August-February 2023. The population is 51 employees of the Refill drinking water depot who are under the auspices of the work area at the UPTD of the Kenali Besar Health Center, Jambi City. With the total sampling technique, the total sample is 51 respondents. Analysis using the chi-square test.

4. Results and Discussion

4.1. Relationship of Respondents' Knowledge with the Implementation of Sanitation Hygiene

knowledge is one of the fundamental reasons for someone to behave towards an object, knowledge will create understanding and belief which then becomes the basis for someone to apply something. with good theory and field practice as well.

Tabel 1. Relationship of Respondents' Knowledge with the Implementation of Sanitation Hygiene in the Work Area of the Kenali Besar Health Center in 2022

Employee Knowledge	Application of Sanitary Hygiene				Total		p-value	PR (95%CI)
	Not Feasible		Feasible					
	n	%	n	%	n	%		
Worst	18	78.26	5	21.74	23	100	0.000	3.652 (1.740-7.664)
Good	6	21.43	22	78.57	28	100		

Source: Processed primary data, 2023

Based on the statistical test results, it was found that the p-value was 0.000 ($p < 0.05$), this indicated that there was a relationship between knowledge and the application of sanitation hygiene at drinking water depots in the working area of the Kenali Besar Public Health Center. The results of the analysis also obtained a prevalence ratio (PR) of 3,652 (95% CI = (1,740-7,664)), meaning that employees with poor knowledge are at risk of 3,652 times applying improper sanitation hygiene compared to employees with good knowledge. The results of this study were also supported by research conducted by Saputra (2020) on 66 drinking water depots in the working area of the Bahaur Hilir Health Center, which stated that there was a relationship between handlers' knowledge of personal hygiene and the quality of drinking water at refill depots (DAMIU). With a p-value of 0.000 ($p < 0.05$).[11] This is also in line with research conducted by Nur (2020) on depots in the working area of the Pauh Health Center, Padang City in 2020, with the results showing a relationship between handlers' knowledge of personal hygiene, and p-value of 0.000 ($p < 0.05$).[12] This is because with a good level of knowledge in the Working Area of the Bahaur Hilur Health Center and the Pauh Health Center

in Padang City there is a change in the application of sanitation hygiene from an individual who has high knowledge as evidenced by the implementation carried out in each of these regions.

2. The Relationship between Respondents' Attitudes and the Implementation of Sanitation Hygiene

Tabel 2. The Relationship between Respondents' Attitudes and the Implementation of Sanitation Hygiene in the Working Areas of the Kenali Besar Health Center in 2022

Employee Attitude	Application of Sanitary Hygiene				Total		p- value	PR (95%CI)
	Not Feasible		Feasible					
	n	%	n	%	n	%		
Negative	17	80.95	4	19.05	21	100	0.000	3.469 (1.756- 6.855)
Positive	7	30.43	23	76.67	30	100		

Source: Processed primary data, 2023

The results of the analysis show that the relationship between employee attitudes and the implementation of sanitation hygiene at the drinking water depot in the Kenali Besat Health Center work area in 2022 is 0.000 ($p < 0.05$), so it can be said that employee attitudes are related to the implementation of sanitation hygiene. The study also obtained a prevalence ratio (PR) of 3,469 (95% CI = (1,756-6,855)). That is, employees with a negative work attitude are at risk of implementing improper sanitation hygiene 3,469 times at drinking water depots, compared to workers with a negative attitude. This research was also supported by a researcher named Prawita in 2018 who said that there was a correlation between the attitude and sanitation hygiene actions of handlers at the Ombak Seagrass Restaurant (p value = 0.032).

This research proved that the attitude of handlers did have a significant relationship with sanitation hygiene measures.[13] This was again reinforced and agreed upon by Rahayu researchers in 2018 who found a significant relationship between attitudes and the implementation of Water Depot Sanitation Hygiene with a p value = 0.035 ($p < 0.05$). This research was approved because based on the observations made and the data analysis carried out, it turns out that the attitude of an employee will have an influence on the application of sanitation hygiene in their respective work areas, with a positive attitude, they are automatically accustomed to carrying out sanitation hygiene at drinking water depots and the results of this study have not stated that there is no relationship between attitudes and the application of sanitary hygiene in drinking water depots. That is, it can be concluded that a person's attitude which is supported by environmental factors and individual characteristics of a person who is aware of the importance of implementing Water Depot Sanitation Hygiene has a correlation/influence in implementing Water Depot Sanitation Hygiene in the Working Area of the Kenali Besar Public Health Center, Jambi City.

Naturally, this attitude in question becomes a closed evaluation study or response to an object, the meaning of which can be interpreted but cannot be seen because of a tendency that originates within the individual to apply which refers to a certain pattern of an object because of the stance and feelings there.

Literally, this attitude is formed as a result of reactions from personal characteristics, social environment and biological inheritance.[14] Personal attitudes are usually influenced by internal factors which include psychological and physiological motives as well as external factors, namely norms, barriers, drivers as well as existing situations, so that conclusions can be drawn that sisao becomes an undisclosed reaction from objects whose manifestations cannot be seen and can only be interpreted and employees who have a negative work attitude are at risk 3,469 times to implement improper sanitation hygiene in drinking water depots, compared to workers with a positive attitude.[15]

3. Relationship of Training of Respondents to Drinking Water Depots on the Implementation of Sanitary Hygiene

Tabel 3. Relationship of Training of Respondents to Drinking Water Depots on the Implementation of Sanitary Hygiene in the Working Areas of the Kenali Besar Health Center in 2022

Employee Training	Penerapan Higiene Sanitasi				Total		p-value	PR (95%CI)
	Not Feasible		Feasible					
	n	%	n	%	n	%		
Tidak Ada	20	62.5	12	37.5	32	100	0.01	2.969
Ada	4	21.05	15	78.95	19	100		(1.194-7.384)

Source: *Processed primary data, 2023*

Based on the statistical test results, it was found that the p-value was 0.01 ($p < 0.05$), so it can be said that employee training is related to the implementation of depot sanitation hygiene in the Kenali Besar Health Center work area in 2022. The statistical test results also obtained a PR value of 2,969 (95% CI=(1.194-7.384)). This means that respondents who did not carry out training were at risk of 2,969 times applying improper sanitation hygiene compared to those who did training.

The results of this study were supported by Dahrili et al in 2021 who said there was a relationship between training and the research results showing that there was a relationship between training and the implementation of hygiene and sanitation with a p value of 0.035 ($p < 0.05$), the research results also showed that as many as 9 drinking water depot owners have conducted training and as many as 21 drinking water depot owners have never conducted training. This is because the training provided both has an influence on the application of sanitary hygiene and increases knowledge as has been described in the relationship between knowledge and the application of sanitation hygiene above. Even though the locations are different, the characteristics both show a positive influence on the application of sanitary hygiene.[8]

However, this study is in contrast to research conducted by Sarkosi in 2019 which stated that there was no difference between hygiene training and the attitude and application of sanitation hygiene to workers. Where the research shows that workers with training do not get significant changes in attitude as evidenced by the post-test and pre-test questionnaires which are not too much different in the results. Nevertheless, based on the Wilcoxon statistical test, it was found that as many as 15 respondents had experienced a decrease in attitude from before to after and

as many as 20 people had an increase in attitude from before to after. The results also show that the percentage of DAM ownership is 6 people who participate in sera are operators of the depot and as many as 13 participants are owners of the depot.[15]

Therefore, in essence, training is an effort that can be carried out to gain knowledge and skills regarding the application of sanitation hygiene which will be carried out at drinking water depots.[15] That is, it can be concluded that the training provided by a person has a major influence on the implementation of Water Depot Sanitation Hygiene if this is supported by a good attitude, trust is built and concepts are also understood in the Work Area of the Kenali Besar Health Center in Jambi City.

5. Conclusion and Recommendations

Based on research conducted regarding the relationship between knowledge, attitudes, and employee training on the application of hygiene and sanitation in drinking water depots in the working area of the Kenali Besar Health Center, it can be concluded that:

1. The majority of the implementation of depot sanitation hygiene in the working area of the Kenali Besar Public Health Center is implemented properly (52.9%).
2. The distribution of knowledge of the majority of respondents has good knowledge (54.9%)
3. The distribution of attitudes of the majority of respondents has a positive attitude (58.8%)
4. Distribution of respondent training, the majority of respondents did not conduct training (62.7%).
5. There is a relationship between knowledge and the implementation of drinking water depot sanitation hygiene (p-value 0.000; PR 3.652 (95% CI=(1.740-7.664)),
6. There is a relationship between knowledge and the implementation of drinking water depot sanitation hygiene (p-value 0.000; PR 3.469 (95% CI=(1.756-6.855)))
7. There is a relationship between knowledge and the implementation of drinking water depot sanitation hygiene (p-value 0.01; PR 2.969 (95% CI=(1.194-7.384)))

The suggestions that can be given by researchers based on research results are as follows for the Health Service and the Kenali Besar Health Center to carry out routine supervision and inspection of depots in the working area of the Kenali Besar Health Center and also other health centers. Provide comprehensive training to every employee who works at the drinking water depot regarding the implementation of depot sanitation hygiene. Provide education related to the application of hygiene and sanitation in drinking water depots. Apply sanitary hygiene and use gloves and masks in carrying out work activities. For employees who smoke are advised not to smoke while in the work environment.

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