



THE SANITATION ASPECTS IMPACT TO THE NUMBER OF GERMS ON SPOONS USED BY STREET VENDORS

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Abstract

Disability after a stroke that lasts for a long time can reduce the patient's quality of life that interventions are needed to. The cleanliness of tableware is greatly influenced by the washing water and the washing method. The washing water used must meet the standard requirements for clean water. Proper cleaning of equipment will result in clean and healthy food processing equipment. The large number of street vendors in Jatilawang District allows the spread of disease due to poor sanitation. This can come from the technique of washing cutlery that is not good, so researchers are interested in conducting research with spoon media as the object under study.

This type of research is observational by looking at the description of hygiene and sanitation and laboratory analysis to determine the number of germs on cutlery (spoon) with a cross sectional approach. The sample in this study was a spoon used by each street vendor in Jatilawang District with a total of 30 samples.

The results showed that there was a relationship between washing and the number of spoon germs on street vendors in Jatilawang District, Banyumas Regency (p -value = 0.00). There is also a relationship between spoon storage and spoon germ numbers on street vendors in Jatilawang District, Banyumas Regency (p -value = 0.033).

Therefore, traders must pay attention to environmental sanitation, especially to carry out proper washing techniques based on regulations Minister of Health of the Republic of Indonesia No. 1096 of 2011 concerning food service sanitation hygiene.

Keywords: : food equipment: sanitation: storage: washing

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Introduction

The cleanliness of tableware is greatly influenced by the washing water and the washing method. The washing water used must meet the standard requirements for clean water as stated in the Regulation of the Minister of Health of the Republic of Indonesia No. 416/MENKES/PER/IX/1990 concerning the requirements for clean water quality, in which the total Coliform (MPN) of clean water sourced from pipes is 10 per 100 ml of sample and 50 per 100 ml for non-piped water. While the requirements for the number of germs on tableware according to the Regulation of the Minister of Health of the Republic of Indonesia No. 1096/Menkes/SK/VI/2011 concerning Food and Drink Sanitation Hygiene, that for tableware requirements, namely the germ number on tableware must be 0 (zero).

Proper cleaning of equipment will produce clean and healthy food processing tools (Rajiani et al., 2018). The practice of washing processing equipment consists of washing tubs of at least 3 washing basins, namely flushing, soaping and rinsing. The water used to wash the equipment, if it looks dirty, must be immediately replaced with new water, because if the water is not replaced it can cause the equipment to be contaminated with bacteria from dirty washing water and poor cleaning of equipment (Widyanto et al., 2019).

In Jatilawang District, Banyumas Regency, there are many street vendors selling various kinds of food. The number of street vendors who sell food in that place is 30 traders. Food utensils used by traders are bowls, glasses, forks, spoons. The large number of street vendors in Jatilawang District allows the spread of diseases due to poor sanitation (Prihatin et al., 2018). This can come



from the technique of washing cutlery that is not good, so researchers are interested in conducting research with spoon media as the object under study.

Based on the above analysis, it is necessary to do research on "The Relationship of Sanitary Hygiene with Germs Numbers on Spoons Used by Street Vendors in Jatilawang District, Banyumas Regency in 2021".

Methods

This type of research is observational by looking at the dependence (Kot & Rajiani, 2020) between sanitation hygiene and laboratory analysis to determine the number of germs on cutlery (spoon) with a cross sectional approach. The sample in this study was a spoon used by street vendors in Jatilawang District with several inclusion criteria, such as a spoon made of stainless, on the handle of the spoon there is carving, it has been through a washing and storage process at each of the street vendors in Jatilawang district, Banyumas Regency. totaling 30 samples.

Results and Discussion

The relationship between washing and the number of germs on the spoons of street vendors in Jatilawang District, Banyumas Regency in 2021 is presented in table 1.



Table 1. Washing and Germ Count

Washing	Number of bacteria			Total		
	N	%	N	%	F	%
Non-compliance	10	83.3	2	16.7	12	100
Compliance	8	44.4	10	55.6	18	100
Total	18	60	12	40	30	100
Chi-Square			4,573			
P-Value			0.033			

The group of germ numbers that did not meet the requirements, namely the proportion of spoon washing that did not meet the requirements, was 83.3%, which was greater than the one that met the requirements, which was 44.4%. Meanwhile, in the group of germ numbers that met the requirements, the proportion of washing spoons that met the requirements was 55.6%, which was greater than that of those who did not meet the requirements of 16.7%. Based on the results above, the significance value (p-value) is 0.033.

The relationship between storage and germ numbers on the spoons of street vendors in Jatilawang district, Banyumas Regency in 2021 is presented in table 2.



Table 2. Storage and Germ Count

Storage	Number of bacteria			Total		
	N	%	N	%	F	%
Non-compliance	17	100	0	0	17	100
Compliance	1	7.7	12	92.3	13	100
Total	18	60	12	40	30	100
Chi-Square			26,154			
P-Value			0.000			

The group of germ numbers that did not meet the requirements, namely the proportion of washings that did not meet the requirements of 100% was greater than those that met the requirements of 7.7%. Meanwhile, in the group of germ numbers that meet the requirements, the proportion of washing that meets the requirements is 92.3%, which is greater than that which does not meet the requirements of 0%. Based on the results above, the significance value (p-value) is 0.00.

The problems of street vendors in Jatilawang district include 30 respondents who do not have sanitation and disinfection tubs (hot water), and there are also 17 respondents who do not provide



rinse tubs with warm water. The washing process using a sanitary tub is very important to avoid contamination of cutlery.

According to Arisanty et al. (2020) water that is used repeatedly for the process of washing food utensils will be very easily contaminated with germs attached to the equipment to be washed. This condition does not meet the sanitary hygiene requirements that the equipment should be washed immediately under the faucet with running water to avoid the presence of bacteria in the water used. The solution that researchers want to offer is that it is better to increase the knowledge of street vendors in Jatilawang district, it is necessary to conduct training or provide leaflets about washing techniques to handlers so that handlers can know the correct washing technique and use disinfection, namely with hot water with a temperature of 82.20C, If it is difficult to provide water at that temperature, it can also be added to a tub filled with water, given a dose of 50 ppm chlorine for 1 minute and then placed in a drain.

The problem with street vendors in Jatilawang district is that for cups, cups, spoons, and the like, the storage method is not reversed, which is carried out by 12 respondents (40%), then 7 respondents (23.3%).

Based on other observations, it is known that the majority of cutlery is stored in an open state so that dust can easily stick to it, flies or vectors are free to perch on the cutlery, even though the storage area is made of iron but its cleanliness is not maintained.

According to Muliani (2018), storage of utensils in damp and rusty places with wet and unclean conditions will cause contamination of the cutlery. Contamination that has occurred before storage



causes germs to continue to grow. Fundamentally, it is necessary to know that the correct storage of cutlery is stored in a dry, clean and inverted state; the storage of utensils is made of anti-rust, flat and not worn/damaged, kept clean and protected from sources of contaminants. It is advisable to increase the knowledge of traders, it is necessary to conduct training or provide leaflets on washing techniques to handlers so that handlers can know the correct washing technique and use disinfection, namely with hot water with a temperature of 82.2⁰C, into a tub filled with water given chlorine at a dose of 50 ppm for 1 minute and then placed in a drain 1096 of 2011 concerning hygiene and sanitation of catering services. Traders must provide 3 washing basins to ensure the number of germs on tableware meets health requirements. Traders must provide disinfection with hot water or with chlorine. It is recommended that the place for storing cutlery must be arranged in such a way that it meets health and safety requirements, protected from contamination by bacteria or germs after going through the washing stage. An ideal tableware storage technique is absolutely necessary. Where the storage should be adjusted to the type of equipment in a closed state so that the equipment is kept clean and protected from vector touch. It is advisable to increase the knowledge of the handlers by conducting counseling on clean and healthy living behaviors such as using pamphlets, attaching stickers to the shelves/carts of traders street vendors, distributing leaflets about personal hygiene and handler behavior, as well as training on food sanitation hygiene to handlers so that personal hygiene and behavior of food handlers can be improved. In addition, regular health checks on food handlers are required. Handlers should not talk or chat while serving food It is advisable to increase the knowledge of the handlers by



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Conclusion and Recommendation

From the results of the examination conducted on 30 samples of spoons at street vendors (60%) did not meet the requirements (positive germ numbers). Problems that occur include 30



respondents who do not have sanitation and disinfection tubs (hot water), and there are also 17 respondents who do not provide rinse tubs with warm water. There is a relationship between spoon storage and spoon germ numbers on street vendors in Jatilawang District, Banyumas Regency (p-value = 0.033). The problems that occur include for cups, bowls, spoons and the like, the storage method is not reversed, which is done by 12 respondents, 61 (40%). The Health Offices should carry out monitoring and supervision in order to prevent or reduce the risks that may occur due to the lack of attention to environmental sanitation hygiene, especially the cleanliness of spoon cutlery. It is better to check the germ numbers of eating utensils on street vendors in Jatilawang district periodically, such as checking every 6 months. They must also provide counselling about washing cutlery, storage of cutlery, and personal hygiene properly based on ministerial regulation no. 1096 of 2011 concerning food service sanitation hygiene.

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