
Factors Relating to the Behavior of Implementing Restaurant Sanitation Hygiene in the Jelutung District

Rosa Amelia Putri¹⁾, Dwi Noerjoedianto²⁾, Oka Lesmana³⁾

^{1,2,3)} Department Of Public Health , Faculty Of Medicine and health Science, Universitas Jambi, 36139

*Corresponding Author:

Email: dwi_noerjoedianto@unja.ac.id

Abstract

The behavior of implementing restaurant sanitation hygiene is still low, there are many factors that influence the application of restaurant sanitation hygiene, so this study aims to determine the factors related to the behavior of implementing restaurant sanitation hygiene. This study used a cross-sectional design. The research sample consisted of 56 restaurants in Jelutung District, the sampling technique was carried out by total sampling, the variables in this study were the behavior of implementing hygiene and sanitation, knowledge, attitudes, supervision of health workers, facilities and infrastructure. Analysis was performed using the Chi-Square test with a PR CI 95%. The characteristics of the respondents are mostly male (53.6%), age group 19-44 years (51.8%), high school education (41.1%), length of work 1-5 years (44.6%). less knowledgeable (55.4%), positive attitude (51.8%). good facilities and infrastructure (57.1%) and the supervision of health workers is also the supervision of health workers (51.8%). There is a relationship between knowledge $p = 0.022$ (PR = 1.613) (95% CI = 1.074-2.423), attitude $p = 0.006$ (PR = 1.719) (95% CI = 1.180-2.503), supervision of health workers $p = 0.000$ (PR = 2.095) (95% CI = 1.358-3.231), and infrastructure $p = 0.026$ (PR = 1.556). (95% CI = 1.106-2.188) with the behavior of implementing restaurant hygiene sanitation. The risk factors associated with the behavior of implementing restaurant hygiene and sanitation are the absence of staff supervision, low knowledge, negative attitudes, and lack of facilities and infrastructure.

Keywords: Behavior, Hygiene, Sanitation, Restaurant

INTRODUCTION

Food and drink are important components of everyday life, but they can also contain harmful microorganisms. To stop the spread of harmful bacteria, food hygiene and personal hygiene are very important. Food made by restaurants can be contaminated with harmful bacteria because many of them do not fully understand food hygiene. The complexity of this problem makes it crucial because it affects food security.

Based on data from the Ministry of Health's Department of Environmental Health and PHEOC, 163 cases of food poisoning were found, 7,132 of which were fatal (CFR). Among the outbreak reports sent to PHEOC, food poisoning ranks second after the diphtheria pandemic (RI, 2015). According to information from the Jambi City Health Office for 2021, there are 384 TPM (Food Management Places) locations that are open. Out of 384 restaurants, 363 (or 94.5%) met the criteria for cleanliness and hygiene, while 5.5% did not.

Restaurants that do not comply with health and safety standards are often located near sources of air pollution such as landfills. They do not have facilities such as washbasins or places to wash hands under running water to maintain adequate hygiene. Food workers in these places do not always use personal protective equipment such as aprons and head coverings. Finally, food handlers sometimes neglect to wash their hands before and after using the kitchen.

Cleanliness and sanitation of food processing facilities (TPM) is very important because it can help prevent foodborne diseases. As TPM operations and efforts include those directed at food safety and hygiene, there is a need for overall oversight of TPM sanitation and hygiene (Dakwani, 2019). Attitudes, skills, behaviors, arrangements, and infrastructure related to food hygiene and sanitation all influence the behavior of food handlers in terms of hygiene. To protect food, it is very important to maintain proper hygiene habits at all times. Poor personal hygiene can cause problems with food safety (Ronitawati et al., 2022).

Researchers' observations of the food processing process in restaurants in Jelutung District showed that some food handlers did not wear aprons or wash their hands during the food preparation stage, and several locations had poor sanitation and hygiene conditions. Based on the results of the interviews, several food owners and handlers did not understand how to handle food properly or the food hygiene standards that must be met by food processing establishments to comply with regulations. Indonesian Ministry of Health. It is expected to see according to Kepmenkes 1098/Menkes/SK/VII/2003 for further information regarding regulations governing sanitation and hygiene in restaurants. In addition, there are still sanitation problems in several restaurants, including a lack of hand washing facilities and inadequate SPAL (wastewater disposal).

RESEARCH METHODS

This study used a cross-sectional design. The research sample consisted of 56 restaurants in Jelutung District, the sampling technique was carried out by total sampling, the variables in this study were the behavior of implementing hygiene and sanitation, knowledge, attitudes, supervision of health workers, facilities and infrastructure. Analysis was performed using the Chi-Square test with a PR CI 95%.

RESULTS AND DISCUSSION

Respondent Characteristics and Univariate Analysis

Application of sanitation hygiene in restaurants, knowledge, attitudes, supervision of health workers, facilities and infrastructure can be considered as behavioral characteristics of restaurant owners in Jelutung based on research on gender, age, education, length of work, and gender. age, and education can be seen in the graph below:

Table 1 Distribution of Respondent Characteristics in Jelutung District

Characteristics of Respondents	Total	%
Gender		
Male	30	53,6
Female	26	46,4
Age		
Adult (19-44) year	29	51,8
Pre Elderly (45-59) year	23	41,1
Older age (>60) year	4	7,1
Education		
Not attending school/did not finish elementary school	5	8,9
Elementary school/equivalent	2	3,6
High school/equivalent 10		17,9
High school/equivalent 23		41,1
College academic	16	28,6
Length of Work		
1-5 year	25	44,6

6-10 year	19	33,9
11-15 year	8	14,3
>21 year	4	7,1
The Behavior of Implementing Restaurant Sanitation Hygiene		
Not good	39	69,6
Good	17	30,4
Knowledge		
Not good		55,4
Good		44,6
Attitude		
Negative	27	48,2
Positive	29	51,8
Supervision of Health Workers		
There isn't any	29	51,8
There is	27	48,2
Facilities and Infrastructure		
There isn't any	24	42,9
There is	32	57,1

The results showed that there were more male sex characteristics (53.6%) than women (46.4%), based on the age group the most were adults, namely ages 19-44 years (51.8%) and the least were the elderly (7.1%), the most educated respondents were high school/equivalent (41.1%), while the least educated did not finish school (8.9%), and most of the respondents worked 1-5 years for (44.6%) compared to the group with years of service >21 years (7.1%). According to the findings, the majority of respondents had bad (69.6%) and good (30.4%) sanitary behavior. The results of analysis of knowledge variables show that respondents with poor knowledge (55.4%), while good knowledge (44.6%). The attitude of a small number of respondents with a negative attitude was (48.2%) and most of the respondents with a positive attitude were (51.8%). Supervision of health workers mostly did not have visits (51.8%) and a small number of visits (48.2%). Based on the results of observations of poor facilities and infrastructure (42.9%) and good facilities and infrastructure (57.1%).

Bivariate Analysis of Research Variables

The following table shows the findings of an analysis of the relationship between data and the behavior of implementing restaurant sanitation:

Table 2. Bivariate Analysis of Relationships with the Behavior of Implementing Sanitation Hygiene in Restaurants in Jelutung District in 2022

The Behavior of Implementing Restaurant Sanitation Hygiene								
n	Not good		Good		Total		P-value	PR (95% CI)
	%	n	%	n	n	%		
Knowledge								
	26	83,9	5	16,1	31	100,0	0,022	1,613 (1,074-2,423)
	13	52,0	12	48,0	25	100,0		

Attitude								
Negative	24	88,9	3	11,1	27	100,0	0,006	1,719
Positive	15	51,7	14	48,3	29	100,0		(1,180-2,503)
Supervision of Health Workers								
There isn't any	27	93,1	2	6,9	29	100,0	0,000	2,095
There is	12	44,4	15	55,6	27	100,0		(1,358-3,231)
Facilities and Infrastructure								
There isn't any	21	87,5	3	12,5	24	100,0	0,026	1,556
There is	18	56,3	14	43,8	32	100,0		(1,106-2,188)

According to the research findings, there were more respondents who said that restaurants had inadequate hygiene and sanitation in the less knowledge group (83.9%) compared to the good knowledge group (52.0%). Based on the results of the chi-square test, a PR value of 1.613 (95% CI: 1.074-2.423) was found, which means that respondents who have less knowledge are more likely to behave badly in implementing restaurant hygiene and sanitation than respondents who have good knowledge. the good one. It was found that this was statistically significant.

The attitude of the respondents is unfavorable; there are more negative attitudes (88.9%) than positive attitudes (51.7%), which means not good. Based on the results of the Chi-Square test, the PR value was determined to be 1,719 (95% CI: 1,180-2,503), which indicated that respondents with a bad attitude were 1,719 times more likely to apply restaurant hygiene incorrectly compared to respondents who had an attitude the good one. It was found that this was statistically significant.

Visits to health workers were higher in the group without guidance (93.1%) compared to the group that received guidance (44.4%). Based on the results of the chi-square test, the PR value was 2.095 (95% CI: 1.358-3.231), which means that respondents who did not receive guidance from health workers had a 2.095 times higher risk of making mistakes in applying sanitation in restaurants compared to respondents who receive guidance from health workers. It was found that this was statistically significant.

Compared to good facilities and infrastructure (56.3%), the availability of facilities and infrastructure is higher for those that are not good (87.5%). The PR value of 1.556 (95% CI: 1.106-2.188) was determined using the chi-square test, which indicates that respondents with inadequate facilities and infrastructure have a 1.556 times higher probability of having poor sanitation than respondents who have good facilities and infrastructure. It was found that this was statistically significant.

Discussion

Relationship of Knowledge with the Application of Restaurant Sanitation Hygiene in Jelutung District

These findings indicate that there is a relationship between knowledge and the application of sanitation in restaurants, where the majority of respondents have an inadequate understanding, thereby increasing the risk of not implementing food hygiene. The findings of this study are consistent with that of (Oktarizal, 2021) from Tanjung Balai Karimun in 2021, who found a relationship between the application of sanitation and knowledge in the community. This was shown by (Ahmad Husaini, Subakir, 2020) in the Simpang IV Sipin Jambi Health Center work area who found a relationship between sanitation knowledge and the implementation of restaurants in the city. This shows that respondents' understanding is still lacking because they do not understand the factors that must be considered in preparing good food, and as a result they do not practice good sanitation (Mayasari et al., 2018). In addition, there are still many respondents who are still confused about what is meant by food hygiene. The concept of food hygiene, according to

respondents, is only related to serving food that is pleasing to the eye, delicious and nutritious (Brutu, 2021).

Based on the results of the interviews and observations made, the limited understanding of the respondents regarding the implementation of poor hygienic behavior is the result of their low level of education, where the average level of their education is below elementary school graduation. Respondents still do not understand the elements of restaurant sanitation that must be met in order to meet health requirements. For example, respondents did not understand the importance of installing wire mesh over ventilation holes to prevent rats and insects from entering or the purpose of personal protective equipment (PPE) when handling food. They also don't understand the importance of routinely washing their hands before and after eating. Manipulation The tendency of respondents not to use their own knowledge to adopt healthy living behaviors is the second supporting factor. The defendant believed that there would be no problems or impacts if he did not do what he knew

Decree of the Minister of Health of the Republic of Indonesia No. 1098/Menkes/Sk/VII/2003 states that wearing work clothes appropriate to the work being performed, such as aprons, masks, waterproof gloves and shoes, is mandatory every time you work. wash hands before eating. it is expected to take or take food with cutlery, disposable plastic gloves, and food tongs when in direct contact with food. Avoid doing

Correlation between Attitudes and the Implementation of Restaurant Sanitation Hygiene in Jelutung District

These findings show that there is a relationship between attitudes and sanitation hygiene practices in restaurants, where the majority of respondents have a negative attitude that increases the likelihood of not maintaining adequate and appropriate sanitary hygiene. The findings of this study are in line with the research of Oktarizal et al. from Tanjung Balai Karimun in 2021, who found a relationship between attitudes and sanitation practices there. According to Ahmad Husaini et al. (2020), there is a relationship between attitudes and the application of sanitation in restaurants in the Simpang IV Sipin Jambi Health Center work area. Attitudes improve with information, and the opposite also applies: the lower the knowledge, the worse the attitude. In addition, contextual circumstances, experience, and education also have an impact on the attitude of restaurant owners (Notoatmodjo, 2012). According to (Maryam Maghafirah, 2018) poor hygiene standards are not due to lack of information, but due to habitual factors, individual reactions from food handlers who don't like to wear aprons while working even though it has been recommended, and other things. Therefore, food employees must receive special counseling or training if they wish to improve their practices

Observation of attitudes directly and indirectly can be done. You can state clearly what the respondent thinks about the item. This can be done indirectly by asking hypothetical questions and then asking for responses. Conditions that encourage or facilitate the formation of positive attitudes, such as assistance from health professionals and institutions, are necessary for attitudes to become actual behaviors (Suryani & Jannah, 2021).

Based on the survey results, it is evident that respondents who hold this belief continue to refuse to wear personal protective equipment (PPE), such as masks and aprons, hold objects while wearing jewelry (such as rings), carry and serve food that is not their own, and require employees to wear certain work clothes. Respondents' ignorance about how to use proper sanitation behavior and limited hygiene and sanitation alternatives for its application were the causes. This will have an impact on processed food and consumer health if it is not stopped.

Therefore, to change the negative attitude of respondents towards hygiene and sanitation requirements for restaurants, restaurants must get stronger support from health workers. This is required by Decree of the Minister of Health No. 1098/Menkes/SK/VII/2003 (Kementerian Kesehatan Republik Indonesia, 2003).

Relationship between Supervision of Health Officers and Implementation of Restaurant Sanitation Hygiene in Jelutung District

Based on the research findings, it was found that there was a relationship between the supervision of health workers and the implementation of cleanliness in restaurants, even though most of the respondents did not experience visits by health workers. The danger of non-compliance with food hygiene increases in the absence of supervisory visits.

This research is consistent with (Harnani & Utami, 2018) regarding sanitation problems in restaurants in the Tangkerang Labuai Village in Pekanbaru. The results of the study show that restaurants that do not receive assistance from health workers are 17.5 times more likely to violate sanitation standards than restaurants that receive assistance.

According to the research findings, the majority of respondents did not seek medical help from health professionals, which means that these health professionals rarely visit to investigate and provide advice because they do not inspect equipment. As a result, food operators feel they are not being watched by these professionals and are not practicing good hygiene. Advice from health professionals for restaurant food hygiene standards should be mandated, as well as notifications and warnings to respondents who do not adhere to restaurant food hygiene standards.

In order for restaurant owners to implement restaurant sanitation, health workers must organize restaurant sanitation counseling to increase knowledge about restaurant sanitation.

The Relationship between Facilities and Infrastructure and the Implementation of Restaurant Sanitation Hygiene in Jelutung District

According to research findings, infrastructure and the application of sanitation in restaurants which often have substandard facilities and infrastructure have a relationship. Nutritional hygiene violations are more likely to occur in areas with poor infrastructure.

Research conducted by (Hidayati & SN, 2022) found that there was a substantial relationship between personal hygiene, food processing sanitation, and food storage hygiene in Sengeti District, Muaro Jambi Regency. Conclusion of the research this corroborates the findings. In addition, this is in line with research conducted by (Pitri & Husaini, sugiarto, 2020) in the working area of the Tanjung Pinang Health Center, whose results show that there is a relationship between facilities and infrastructure and the use of sanitary hygiene in restaurants. This is because they do not use complete personal protective equipment (PPE), such as mouth guards, disposable plastic gloves, and hair and head coverings. Self-protection equipment is also usually not used continuously.

According to Kepmenkes RI (2003), food handlers must have access to facilities including aprons, clean clothes, masks, head protectors, hand washing stations, and special soap. A tool or environment is required to enable or encourage the action; knowledge and attitude alone do not guarantee behavior (Notoatmodjo & Notoatmodjo, 2007).

Due to the lack of aprons, head coverings, and gloves, it can be concluded that the majority of respondents did not have complete personal hygiene equipment. Due to the respondents' perception that their hands and clothes were clean, aprons and head coverings were not available. Respondents' poor food hygiene practices are the result of poor infrastructure. However, one of the things that influence human behavior is the accessibility of resources or infrastructure. Aprons, clean clothing, masks, head protectors, hand washing facilities and special soap should be worn by respondents.

Food hygiene can be supported by various factors, including the existence of suitable infrastructure. Therefore, it is better to design and equip spaces and infrastructure that support improving the quality of food safety, such as handwashing stations with soap, as well as kitchen facilities and service equipment that comply with sanitation standards.

CONCLUSION

It is hoped that the findings from this study will serve as a benchmark for government agencies working to improve personal hygiene in restaurants and other food-producing places. To further improve sanitation socialization, carry out routine inspections to restaurants and provide training to food handlers in restaurants in the Jelutung area.

REFERENCES

- Ahmad Husaini, Subakir, R. A. (2020). *JURNAL Promotif Preventif*. 3(1), 58–68.
- Brutu, H. (2021). *Hubungan Pengetahuan dan Sikap Penjamah Makanan Dengan* (hal. 72–73).
- UIN. Dakwani, T.-. (2019). Hygiene and Sanitation of Food Processing Center in Gudang 100 Warehouse at Tanjung Perak Sea Port of Surabaya 2018. *Jurnal Kesehatan Lingkungan*, 11(1), 69. <https://doi.org/10.20473/jkl.v11i1.2019.69-74>
- Harnani, Y., & Utami, T. (2018). Faktor-faktor yang berhubungan dengan higiene sanitasi rumah makan di Kelurahan Tangkerang Labuai Kota Pekanbaru. *Collaborative Medical Journal (CMJ)*, 1(2), 11–20.
- Hidayati, F., & SN, F. R. S. (2022). Determinan Perilaku Personal Hygiene Pada Penjamah Makanan Di Rumah Makan. *Jurnal Kesehatan*, 13(3), 472–477.
- Kementerian Kesehatan Republik Indonesia. (2003). *Kepmenkes RI No. 1098/MENKES/SK/VII/2003 tentang Persyaratan Hygiene dan Sanitasi Rumah Makan dan Restoran*. 1–45.
- Maryam Maghafirah, S. (2018). *Hygiene Sanitasi Penjamah Makanan Di Sepanjang Jala n Raya Tajem Maguwoharjo Yogyakarta Tahun 2017*. 3(April), 15–22.
- Mayasari, A. I., Heryana, A., K, D. A., & Fithri, N. K. (2018). *Faktor-Faktor Yang Berhubungan Dengan Perilaku Penjamah Makanan Di Restoran X Kota Cirebon Tahun 2018*. 51.
- Notoatmodjo. (2012). *Promosi Kesehatan dan Perilaku Kesehatan*. Rineka.
- Notoatmodjo, S., & Notoatmodjo, S. (2007). *Kesehatan masyarakat : ilmu dan seni*. Rineka Cipta.
- Oktarizal, H. (2021). *Faktor-Faktor yang Mempengaruhi Penerapan Higiene Sanitasi Tempat Pengelolaan Makanan di Tanjung Balai Karimun Tahun 2021*. 2(2), 1–8. <https://doi.org/10.3652/J-KIS>
- Pitri, R. H., & Husaini, sugiarto, A. (2020). Faktor Yang Berhubungan Dengan Praktik Hygiene Penjamah Makanan Di Sekolah Dasar Wilayah Kerja Puskesmas Tanjung Pinang. *Journal of Healthcare Technology and Medicine*, 6(2), 732–741.
- RI, K. (2015). Permen Kesehatan Republik Indonesia Nomor 45 Tahun 2014 Tentang Penyelenggaraan Surveilans Kesehatan. *Menteri Kesehatan Republik Indonesia Peraturan Menteri Kesehatan Republik Indonesia, Nomor 65(879)*, 2004–2006.

- Ronitawati, P., Melani, V., & Sa, M. (2022). *Pesantren Kota Dan Desa (Differences in Knowledge , Attitudes , Personal Hygiene and Microbial Contamination in Urban and Rural Islamic Boarding Schools) santri Pondok Pesantren Hidayatul yang secara langsung mengolah pesantren terwujud jika penjamah*. 6(1), 8–18.
- Suryani, D., & Jannah, A. A. (2021). Determinan Penerapan Higiene Sanitasi Makanan Pada Pedagang Angkringan Selama Masa Pandemi Covid-19. *PREPOTIF: Jurnal Kesehatan Masyarakat*, 5(2), 882– 890. <https://doi.org/10.31004/prepotif.v5i2.2156>