KNOWLEDGE, ATTITUDES AND PRACTICES ON FOOD SAFETY AND PERSONAL HYGIENE PRACTICE AMONG FOOD COURT HANDLERS IN KUALA TERENGGANU

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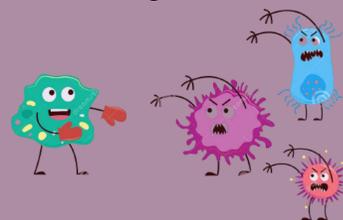Corresponding author's email: norhayatihadi@unisza.edu.my

ABSTRACT

Food handlers' roles were critical in preventing food contamination during preparation and maintaining the cleanliness of food premises. This is because a huge number of individuals eat outside the home and are potentially exposed to food-borne illnesses, food handlers' knowledge, attitude, and practice in food safety and personal hygiene practice is a major public health problem. This cross-sectional study aimed to determine the level of KAP and the association between the sociodemographic data with the level of knowledge, attitudes and practices on food safety and personal hygiene practice among food court handlers in Kuala Terengganu. 308 food handlers from seven food courts in Kuala Terengganu district were involved in this study. The data were collected from the food handlers through the self-administered questionnaire and analysed using the SPSS version 22.0. The results show that the food handlers have excellent knowledge and attitude, and good practices toward food safety and personal hygiene practice with 95.1%, 87% and 99.7% respectively. Respondents also showed that there is no significant association between sociodemographic data with the level of knowledge and practice. However, there was a significant difference between age, educational level and working experience with the level of attitudes (P<0.05). Even though the respondents showed a positive result on the KAP level, there was no significant association between knowledge and attitudes, knowledge and practice and attitudes and practice among food court handlers (P>0.05). Thus, this finding reveals that the food handlers' KAP levels are good but several aspects of food safety and hygiene procedures, such as refreezing food items, separating raw and cooked food, and not wearing jewellery or watches, should be highlighted

Introduction

- Foodborne diseases are a major cause of morbidity and mortality, as well as a significant impediment to global socio-economic development.
- About 30% of the people in developed countries suffer from foodborne disease that related to food safety and hygiene and this was important to make sure the food was in a good quality to prevent contamination and lead to this problem.
- In 2016 there were 32 notification of with 71 cases of food poisoning occur in the food court in Malaysia (MOH.,2016).
- 97% of food poisoning cases caused by the inappropriate handling of foods by the foodservice industry (Siau et al., 2015).
- In order to combat this problem , food handlers play an significant role in food safety throughout the chain of production, processing, preparation and storage of food because food handlers' malpractice was the main cause of the majority of foodborne disease outbreaks global.
- Knowledge, attitudes and practice are the three factors that play a major role in the occurrence of food illness caused by food handlers.

Objective

1. To determine the **level of knowledge, attitudes and practices** on food safety and personal hygiene practice among food court handler in Kuala Terengganu.
2. To determine the **association between the sociodemographic data with the level of knowledge, attitudes and practices** on food safety and personal hygiene practice among food court handler in Kuala Terengganu.
3. To determine the **association between the level of knowledge and attitudes, knowledge and practices, and attitudes and practices** on food safety and personal hygiene practice among food court handler in Kuala Terengganu.

Methodology

- **Study Design** - Cross-sectional study
- **Study Period** - 6 month (1st June - 31 Dec 2021)
- **Study Location** - 7 food court in Kuala Terengganu District
- **Reference Population** - All food court handler in Terengganu
- **Source Population** - Food court handler in 8 districts in Terengganu
- **Study Participants** - All food court handlers that meet the inclusion and exclusion criteria
- **Sampling Method -** Convenience Sampling
- **Sample size** - 308 respondents

Online Self-administered questionnaires were used in the study, and the question was adopted from previous research (Abdul-Mutalib et al., 2012).
- Section A (Sociodemographic)
- Section B (Knowledge)
- Section C (Attitudes)
- Section D (Practice)

Conclusion

- This finding found that food court handlers in Kuala Terengganu have a good level of knowledge, positive attitudes with higher level of practice.
- Other than that, only age, education level and working experience showed an association between attitudes level while for level of knowledge and practice did not showed any relationship.
- The finding was usefull to all food handler and play a significnt roles to overcome foodborne disease .
- The study's findings also can help the Local Health Authority design improved guidelines for food handlers, especially in personal cleanliness

References

- Abdul-Mutalib, N. A., Abdul-Rashid, M. F., Mustafa, S., Amin-Nordin, S., Hamat, R. A., & Osman, M. (2012). Knowledge, attitude and practices regarding food hygiene and sanitation of food handlers in Kuala Pilah, Malaysia. *Food Control, 27*(2), 289–293.
- Siau, A. M. F., Mohhiddin, O., Son, R., & Toh, P. S. (2015). Food Safety Knowledge, Attitude And Practices Of Food Handlers In Food Courts, Putrajaya, Malaysia. International Food Research Journal, 22(5), 1843–1854.
- Abdullah Sani, N., & Siow, O. N. (2011). Assessment of Knowledge, Attitudes and Practices (KAP) Among Food Handlers at Residential Colleges and Canteen Regarding Food Safety. Food Control, 40(4), 403–410.

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Results/Discussion

- The result showed that the respondent that involved in this study have good level of knowledge (95.1%) , attitude (87%) and practice (99.7%).
- The same outcomes from the study of Sharif et al (2013) who found that food handlers in the military hospitals in Jordan also expressed high level of knowledge, positive attitude and good practice in food safety with 84.82%, 88.88% and 89.43%.
- The result indicated that the majority of food handlers were very good in the food handling process throughout the chain of food preparation until the storage which can reduce the possibility of foodborne disease occurring to the customer.

- Meanwhile, there was no significants association between sociodemographic data with the level of knowledge and practice. However , there was a significant association between age,educational level, and working experience with the level of attitudes (p<0.05).
- Sharif et al. (2013) and Abdullah Sani & Siow, (2011) had observed that most of the women had positive views toward food safety and cleanliness comparison to men.
- On the other hand, Asmawi et al. (2018) discovered a significant difference between the educational level and the attitudes.

- The current study found that there was no significant association between knowledge and attitude, knowledge and practice, d attitudes and practice with p- value > 0.05.
- The outcome was in line with Clayton et al (2002) discovered that if the food handlers have a strong understanding of food safety, they do not utilize the favourable attitudes they have during the food handling procedure
- However, other findings revealed that high level of knowlege will have an impact on their attitudes and practices when it comes to handling food safely. (Abdullah Sani & Siow, 2014).
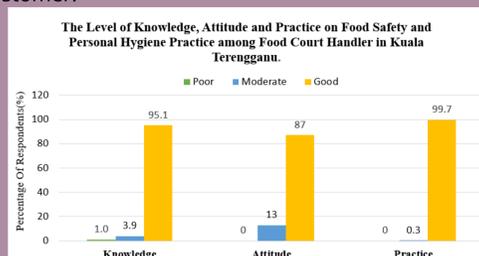

Figure 2 : The Level of Knowledge, Attitude and Practice on Food Safety an and Personal Hygiene Practice among Food Court Handler in Kuala Terengganu (n=308)

Table 1: The association between the sociodemographic data with the level of knowledge on food safety and personal hygiene practice among food court handlers in Kuala Terengganu (n=308).

Variable	Knowledge Level			n (%)	Fisher's exact or x²	P
	Poor	Moderate	Good			
Gender						
Male	2 (0.6)	10 (3.2)	163(52.9)	175(56.8)	3.725	0.155
Female	1(0.3)	2 (0.6)	130 (42.2)	133(43.2)		
Age						
Youth	2 (0.6)	11 (3.6)	244 (79.2)	257 (83.4)	1.204	0.548
Adult	1 (0.3)	1 (0.3)	49 (15.9)	51 (16.6)		
Education Level						
Lower	3 (1.0)	10 (3.2)	209 (67.9)	222 (72.1)	1.999	0.368
Higher	0 (0.0)	2 (0.6)	84 (27.3)	86 (27.9)		
Working Experience						
Inexperience	0 (0.0)	2 (0.6)	26 (8.4)	28 (9.1)	1.150	0.563
Experience	3 (1.0)	10 (3.2)	267 (86.7)	280 (90.9)		
Training Course						
Yes	3 (1.0)	12 (3.9)	278 (92.9)	293 (97.7)	0.807	0.668
No	0 (0.0)	0 (0.0)	15(2.3)	15 (2.3)		

Pearson Chi-square Test (x²)
Data expressed as frequency(n) and percentage (%)

Table 2: The association between the sociodemographic data with the level of attitude on food safety and personal hygiene practice among food court handler in Kuala Terengganu (n= 308).

Variable	Attitude Level		n (%)	Fisher's exact or x²	P
	Moderate	Good			
Gender					
Male	20 (6.5)	155(50.3)	175(56.8)	0.871ᵃ	0.394
Female	20 (6.5)	113 (36.7)	133(43.2)		
Age					
Youth	19 (6.2)	238 (77.3)	257 (83.4)	42.980ᵃ	<0.05*
Adult	21 (6.8)	30 (9.7)	51 (16.6)		
Education Level					
Lower	14 (4.5)	208 (67.5)	222 (72.1)	31.402ᵃ	<0.05*
Higher	26 (8.4)	60 (19.5)	86 (27.9)		
Working Experience					
Inexperience	11 (3.6)	17 (5.5)	28 (9.1)	18.851ᵃ	<0.05*
Experience	29 (9.4)	251 (81.5)	280 (90.9)		
Training Course					
Yes	38 (12.3)	255 (82.8)	293 (95.1)	0.002ᵇ	1.000
No	2 (0.6)	13(4.2)	15 (4.9)		

*Fisher's Exact Test (2-sided)
ᵇPearson Chi-square Test
Data expressed as frequency and percentage
*P<0.05, a significant difference between the level of knowledge with age, education level and working experience.

Table 3: The association between the sociodemographic data with the level of practice on food safety and personal hygiene practice among food court handlers in Kuala Terengganu (n=308).

Variable	Practice Level		n (%)	Fisher's exact or x²	P
	Moderate	Good			
Gender					
Male	0 (0.0)	175(56.8%)	175(56.8)	1.320ᵃ	0.432
Female	1 (0.3)	132 (42.9)	133(43.2)		
Age					
Youth	1 (0.3)	256(83.1)	257 (83.4)	0.199ᵃ	0.834
Adult	0 (0.0)	51 (16.6)	51 (16.6)		
Education Level					
Lower	0 (0.0)	222 (72.1)	222 (72.1)	2.590ᵃ	0.279
Higher	1 (0.3)	85 (27.6)	86 (27.9)		
Working Experience					
Inexperience	0 (0.0)	28 (9.1)	28 (9.1)	0.100ᵃ	0.909
Experience	1 (9.4)	279 (90.6)	280 (90.9)		
Training Course					
Yes	1(0.3)	292 (94.8)	293 (95.1)	0.051ᵃ	0.951
No	0 (0.0)	15(4.9)	15 (4.9)		

*Fisher Exact Test (2-sided)
ᵇPearson Chi-square Test
Data were expressed as frequency(n) and percentage (%)
P-value < 0.05, significant difference

Table 4: The association between the knowledge and attitude, knowledge and practice, and attitude and practice on food safety and personal hygiene practice among food court handlers in Kuala Terengganu (n=308)

Variable	Fisher's exact or x²	P-value
Knowledge - Attitudes	2.353ᵇ	0.308
Knowledge - Practice	0.051ᵇ	0.975
Attitudes - Practice	0.150ᵃ	1.000

ᵃFisher's exact Test
ᵇPearson Chi-Square test
P-value <0.05, significant difference