

Food Handling Practices Of University Canteen

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CHAPTER 1 THE PROBLEM AND ITS SCOPE INTRODUCTION

Rationale of the Study

Food Handling Practices are those procedures that promote better health for the consumers and safety foods. Everyone has bacteria on their bodies. Even healthy people can spread bacteria onto food by touching it with their hands. In order to develop good food handling practices, one must need a clean well sanitized working station at the same time, and well groomed food handlers. Food handlers must have the skills and knowledge that they need to handle food safely as they carry out the work that they are responsible for. Food handling practices cover what staff must do to keep food safe as well as cover what staff must do to keep things clean so they do not contaminate food. Keeping the workplace safe and clean is an important component in the success of the business. It increases individual productivity and also the total output.

University of Cebu Lapu-Lapu and Mandaue Campus have 5 canteens located at ground floor and 5th floor of the building. It primarily caters to the students, teaching and non-teaching staffs as well as visitors. Students comprise the largest group of customers and most of them have no basic knowledge on safe food handling practices of the servers.

The researcher as a faculty of the College of Hotel and Restaurant Management as well as a frequent customer of the canteen observed that most of the customers did not bother on the safeness of the food they ordered. Canteen servers as observed by the researcher lack personal hygiene which may be detrimental to the health of its customers. With this, the researcher opted to conduct this study to determine the food handling practices of the canteen.

Theoretical Background

This study is anchored on the HACCP approach. HACCP stands for Hazard Analysis and Critical Control Point. It is an approach that reduces food borne illness and cross-contamination.

According to Ronald H. Schmidt, Professor of Food Science and Human Nutrition at the University of Florida, Gainesville, HACCP is a logical system designed to identify and to produce a structured plan to control hazards and/or critical situations. One of the tools being used in preventing poor food safety and sanitation is HACCP.

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According to Briegs, 2015, there are several factors that affect food handling practices: First is cross-contamination. It is a process wherein an infected worker touches or get into contact with a food whereby contaminating it that will result to food borne illness. Those contaminations might occur through food to food basis wherein raw foods can contaminate the cooked foods. Other ways also to contaminate foods are through hand to food basis, equipment to food, and unsanitary practices of the food handlers. Another one is the personal hygiene of the food handler wherein foods can be contaminated if the handler does not practice proper personal hygiene just like not cutting their nails.

According to W.H.O (World Health Organization), there are five keys to safer food preparation namely: keep clean, separate raw and cooked, cook thoroughly, keeping food at safe temperatures, and the use of safe water and raw materials.

A study conducted by Bernabe et.al (2012) about "Food Handling Practices of Beachpoint Portofino Beach Resort" found out that the employees wear their prescribed uniforms. There are times also when they fail to wear their hairnet and even forgot to use gloves when handling raw materials for cooking. At times also, they do not observe proper disposal of garbage. Flies, cockroaches and other insects carry bacteria are visible in the workplace as a result of not separating biodegradable materials to non-biodegradable materials.

Another study conducted by Panganoron, et.al (2012) about "Sanitation Practices of Vienna Kaffeehaus and Restaurant in Gorordo Avenue Cebu City" found out that the sanitary practices are sometimes observed in Vienna Kaffeehaus and Restaurant. There are some aspects in which they sometimes observed the sanitary practices such as in the area of personal hygiene. They never observed the removal of jewelries during working hours. Also, those who have coughs and colds were not sent to rest though they are not physically well. On the area of sanitary practices in the receiving area, they sometimes observed the rejection of expired goods.

THE PROBLEM

The Statement of the Problem

This study determined the food handling practices of University of Cebu Canteen. The findings of which will served as the basis for a proposed intervention program.

Specifically, this answered the following questions:

1. What is the profile of the respondents in terms of:

- 1.1 age;
- 1.2 gender;
- 1.3 year level; and
- 1.4 civil status?
2. What are the food handling practices of University Canteen in terms of:
 - 2.1 personal hygiene;
 - 2.2 food preparation;
 - 2.3 cooking; and
 - 2.4 food serving?
3. Is there a significant relationship between the respondents' profile and their food handling practices?
4. Based on the findings of the study, what intervention program maybe proposed?

Statement of Null Hypothesis

There is no relationship between the respondents' profile and their food handling practices.

Significance of the Study

This study would be beneficial to the following: customers, canteen concessionaire, researchers and future researchers.

Customers. Since students and teaching/non-teaching staffs are the recipient of the product and services that the canteen offers, they should get the high quality of the products and services plus the assurance that the food they eat is safe.

Canteen Concessionaire. The result will serve as their basis for continuous improvements of their products and services.

Researchers. Through this study, the researchers were given an opportunity to experience actual research, which could be of great help to their future endeavor.

Future Researchers. This study would be helpful to other researchers who might conduct a study related to this. This will help them in the improvement of their own study and develop a better output which would cater to the needs of their respondents.

RESEARCH METHODOLOGY

Research Design

This study utilized the descriptive-correlational survey method in order to determine the food handling practices of the banquet, functions, and catering services.

Research Environment

University of Cebu Lapu-Lapu and Mandaue sit at the foot of the old Mactan Bridge, connecting the cities of Mandaue and Lapu-Lapu. There are three buildings in UCLM, the old annex building, the new annex building and the new annex two building. Specifically, this study was conducted at 4th floor of the new annex building where the canteen is located.

Research Respondents

The respondents of the study are the 3rd and 4th year Hotel and Restaurant Management students who have

already done the first practicum in the Restaurant phase in different Hotel/Restaurants establishments and have already prior knowledge on the food handling practices and sixty-five dining guests as validators. Table 1 presents the populations and sample of the study.

TABLE 1
POPULATION AND SAMPLES OF THE STUDY

Year Level	Section	Populations		Samples	
		F	%	F	%
3 rd	A	34	9.0	22	8.9
3 rd	B	43	11.3	28	11.9
3 rd	C	48	12.6	31	12.5
3 rd	D	44	11.6	29	11.7
4 th	A	47	12.4	31	12.5
4 th	B	25	6.6	16	6.4
4 th	C	39	10.2	25	10.0
Validators		100	26.3	65	26.3
Total		380	100	247	100

The samples comprised of sixty-five percent (65%) of the population which are determined by quota sampling. For this reason, there are 247 respondents out of the 380 total population of the study.

Research Instrument

The researcher used a researcher-made questionnaire as the main tool in collecting data. The instrument is divided into two categories. The first category is the profile of respondents, the second category are the questions pertaining to the food handling practices which will be subdivided into four parts, namely: Personal hygiene; Food preparation; Cooking; and Food serving.

Research Procedures

Gathering of Data. In gathering data, the researcher first made a letter addressed to the canteen concessionaire asking for their permission of the study. After the permission is granted, the researcher then distributed survey questionnaires. The respondents were given 25-30

Treatment of Data. To treat the quantitative data that were collected to answer the question in this study, the following were used for the treatment:

Simple Percentage was used in the profiling of the respondents.

Chi-square test was used to measure the relationship between the respondent's profile and their food handling practices.

DEFINITION OF TERMS

Important terms which are used in this study are operationally defined in order to shed light on the expositions presented by the researcher.

Cooking. This refers to the process of changing the raw ingredients into consumable products that is made available for the guests.

Food Handling Practices. This term refers to the practices and procedures followed and performed by the food handlers in the preparation and handling of foods.

Food Preparation. This is a term used to describe the activities in relation to changing raw ingredients into edible products made by the cooks and kitchen helpers prior to the cooking of foods.

Personal Hygiene. This refers to the practices of one’s person in order to be clean and maintain cleanliness to ensure food safety.

Food Serving. This refers to the process of delivering the consumable products to the guests.

Food Handling Seminar. This seminar is designed to promote awareness of the proper food handling practices that the students must practice every time.

Validators. They are the customers who dine in at the university canteen.

on the perception of customers on food handling practices of the respondents, the third part discusses the relationship of the profile and the perceived food handling practices.

The table found below shows the profile of the respondents according to age, gender, civil status and year level.

TABLE II. PROFILE OF THE RESPONDENTS

	Frequency	Percent	Cumulative Percent
Age puberty	44	24.0	24.0
adolescence	116	63.4	87.4
young adult	23	12.6	100.00
Gender female	130	71.0	71.0
male	53	29.0	100.0
Civil Status single	183	100.0	100.0
Year Level 3 rd year	110	100.0	100.0
4 th year	73		

It is found that the most of the respondents are in the adolescent are third and fourth year students in Hotel and Restaurant Management.

The succeeding tables showed the respondents’ food handling practices on the aspects of personal hygiene, food preparation, cooking and food serving.

CHAPTER 2 PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the results of the study. The first part presents the profile of the respondents; the second part

TABLE II. FOOD HANDLING PRACTICES

STATEMENTS		WM	DE
Personal Hygiene			
1.	proper kitchen uniform.	Wearing the	2.5 AP
2.	removed during laboratory hours.	Jewelries	2.5 AP
3.	clean and short with no false finger nails or nail polish.	Fingernails are	2.4 AP
4.	touching hair or scratching head and face while on laboratory.	Refrain from	2.2 SP
5.	hand – washing techniques using soap and water.	Practice proper	2.3 SP
6.	any activity that may cause contamination including when working between raw food and ready-to-eat foods, after coughing or sneezing, after touching soiled equipment or utensils and after using restrooms.	Wash hands after	2.3 SP
7.	coverings in the food preparation and serving areas.	Wear hats or hair	2.3 SP
8.	illness such as coughing or sneezing.	Show any sign	1.8 SP
9.	preparing food or serving areas.	Eating while	1.7 SP
10.	strong perfume or anything with noticeable odor.	Refrain by using	1.8 SP
GRAND MEAN			2.2 SP
Food Preparation			
1.	place (putting things in order) during the operation	Practice mise en	2.4 AP
2.		Use safe water	2.4 AP
3.	products separate from ready-to-serve foods	Keep raw	2.4 AP
4.	and vegetables with plain waters to remove surface pesticides residues and other impurities such as soil particles	Wash fresh fruits	2.4 AP
5.		Cutting boards	1.9 SP

	are in good condition are used only specific types of food preparation to avoid cross-contamination.		
6.	boards, knives and other food-contact surface after each contact with potentially hazardous food	Sanitize cutting	1.9 SP
7.	leftover batter, breading or marinade after it has been used	Discard any	2.0 SP
8.	equipment cleaned and sanitized between and after each use	Preparation	2.1 SP
9.	available to use for food preparation activities and or hand washing and janitorial used	Separate sinks are	1.9 SP
10.	thawed using the proper thawing procedure	Frozen foods are	2.0 SP
GRAND MEAN			2.1 SP
COOKING			
1.	in deep pots frequently to ensure thorough cooking	Stir foods cooked	2.3 SP
2.	potentially hazardous foods, make sure fryers are not overloaded	When deep-frying	2.3 SP
3.	temperature returns to the required level before adding the next batch	Make sure the oil	2.2 SP
4.	returns to the required level before adding the next batch	Temperature	2.1 SP
5.	thickness of each portion to make cooking time predictable and uniform	Regulate size and	2.2 SP
6.	equipment to heat up between batches	Allow cooking	2.1 SP
7.	the cooking process	Never interrupt	2.1 SP
8.	to ensure food reaches the proper temperature during cooking.	Use thermometer	1.8 SP
9.	hot holding equipment above 140°F	Keep hot foods in	2.0 SP
10.	in a refrigeration unit or surrounded by ice below 40°F	Keep cold foods	1.8 SP
GRAND MEAN			2.1 SP
FOOD SERVING			
1.	equipment, such as steam tables and hot-food carts during for service but never for reheating	Use hot	2.0 SP
2.	hands before serving the food	Sanitizing your	2.4 AP
3.	beverages with sanitized and clean utensils	Serving food and	2.4 AP
4.	utensils with slight damage	Never used	2.1 SP
5.	used once and then thoroughly washed and sanitized	Service trays are	1.9 SP
6.	are properly covered to avoid contamination	Delivered foods	2.2 SP
7.	from customers uneaten is discarded (not reused or reserved)	Food returned	2.1 SP
8.	not used for food services, and serving utensils, such as spoons, tongs, and ladles, are provided	Bare hands are	2.1 SP
9.	containers for food transport	Use isolated	2.0 SP
10.	transport food are cleaned and well maintained	Carts used to	1.8 SP
GRAND MEAN			2.1 SP

It was found that the respondents always practiced the wearing of the proper kitchen uniform, jewelries are

removed during cooking hours and the fingernails are clean and short with no false finger-nails or nail polish as part of their personal hygiene.

TABLE III. CROSS-TAB ON PROFILE AND PERSONAL HYGIENE

	Age of the Respondents			Total
	Puberty	Adolescence	Young adult	
Personal Hygiene				
Never Practiced	1	6	1	8
Sometimes Practiced	28	70	15	113
Always Practiced	15	40	7	62
	Gender of the Respondents		Total	
	Female	Male		
Personal Hygiene				
Never Practiced	5	3	8	
Sometimes Practiced	82	31	113	
Always Practiced	43	19	62	
	Civil Status		Total	
	Single			
Personal Hygiene				
Never Practiced	8		8	
Sometimes Practiced	113		113	
Always Practiced	62		62	
	Year Level		Total	
	Second year			
Personal Hygiene				
Never Practiced	8		8	
Sometimes Practiced	113		113	
Always Practiced	62		62	

But it can be shown on the cross tabulation above that most of the respondents sometimes practiced all the areas of personal hygiene. So generally speaking, although there are some areas that they always practiced, but the overall assessment showed that they sometimes practiced all the necessary requisites for personal hygiene.

On the aspect of food preparation, they always practiced mise en place(Putting things in order) during the operation. They always use safe water in cleaning the ingredients; keep

the raw products separate from ready-to-serve foods. Moreover, they wash fresh fruits and vegetables with plain water to remove surface pesticides residues and other impurities such as soil particles.

But looking closely on the result of cross-tabulation of the profile and their food preparation practices, it was found, as shown on the table 4, that most of the respondents sometimes practiced the necessary requisites of food preparation.

TABLE IV. CROSS-TAB ON PROFILE AND FOOD PREPARATION

	Age of the Respondents			Total
	Puberty	Adolescence	Young adult	
Food Preparation				
Never Practiced	5	11	1	17
Sometimes Practiced	24	72	17	113
Always Practiced	15	33	5	53
	Gender of the Respondents		Total	
	Female	Male		
Food Preparation				
Never Practiced	12	5	17	
Sometimes Practiced	83	30	113	
Always Practiced	35	18	53	
	Civil Status		Total	
	Single			
Food Preparation				
Never Practiced	17		17	
Sometimes Practiced	113		113	
Always Practiced	53		53	
	Year Level		Total	
	Second year			
Food Preparation				
Never Practiced	17		17	
Sometimes Practiced	113		113	
Always Practiced	53		53	

On the other hand, it was found in the aspect of cooking, they sometimes practiced the necessary requisites

in cooking such as using a thermometer to ensure food reaches the proper temperature during cooking. It is strengthened on the results of the cross-tabulation below

that most of the respondents are clustered in the sometimes practiced level.

TABLE V. CROSS-TAB ON PROFILE AND FOOD COOKING

		Age of the Respondent			Total
		Puberty	Adolescence	Young adult	
Cooking	Never Practiced	2	7	1	10
	Sometimes Practiced	32	86	19	137
	Always Practiced	10	23	3	36
		Gender of the Respondents		Total	
		Female	Male		
Cooking	Never Practiced	6	4	10	
	Sometimes Practiced	101	36	137	
	Always Practiced	23	13	36	
		Civil Status		Total	
		Single			
Cooking	Never Practiced	10		10	
	Sometimes Practiced	137		137	
	Always Practiced	36		36	
		Year Level		Total	
		Second year			
Cooking	Never Practiced	10		10	
	Sometimes Practiced	137		137	
	Always Practiced	36		36	

On the aspect of food serving, they always practiced sanitizing their hands before serving the food with sanitized and clean utensils. But looking at the cross-tabulation

below, it shows that most of the respondents sometimes practiced the necessary requisites of food serving.

TABLE VI. CROSS-TAB ON PROFILE AND FOOD SERVING

		Age of the Respondent			Total
		Puberty	Adolescence	Young adult	
Food Serving	Never Practiced	2	10	0	12
	Sometimes Practiced	33	77	19	129
	Always Practiced	9	29	4	42
		Gender of the Respondents		Total	
		Female	Male		
Food Serving	Never Practiced	8	4	12	
	Sometimes Practiced	96	33	129	
	Always Practiced	26	16	42	
		Civil Status		Total	
		Single			
Food Serving	Never Practiced	12		12	
	Sometimes Practiced	129		129	
	Always Practiced	42		42	
		Year Level		Total	
		Second year			
Food Serving	Never Practiced	12		12	
	Sometimes Practiced	129		129	
	Always Practiced	42		42	

But the sample data do not provide sufficient evidence to say that age, gender, civil status and year level has a relationship on their food handling practices. In fact, Chi-square tests was not performed on civil status and year level since the respondents are all single and are all third and fourth year students. SPSS would detect it as a consonant.

TABLE VII. RELATIONSHIP OF VARIABLES

Variables	P-value	Decision	Interpretation
Personal hygiene and age	0.937	Reject Ho	No significant Relationship
Personal hygiene and age	0.780	Reject Ho	No significant Relationship
Personal hygiene and age	0.634	Reject Ho	No significant Relationship
Personal hygiene and age	0.617	Reject Ho	No significant Relationship
Personal hygiene and age	0.889	Reject Ho	No significant Relationship
Personal hygiene and age	0.374	Reject Ho	No significant Relationship
Personal hygiene and age	0.398	Reject Ho	No significant Relationship
Personal hygiene and age	0.282	Reject Ho	No significant Relationship

**Proposed Output
Hazard Analysis and Critical Control Point Seminar**

October 5, 2017

8:00 am – 12:00 nn

HRM Mini-Restaurant

Flow of the Seminar:

8:00 – 8:30 AM

8:30 – 8:35 AM

8:35 – 8:40 AM

Anthem

8:40 – 8:45 AM

Registration

Invocation

Philippine National

UC Hymn

8:45 – 9:00 AM

Address

Grayfield T. Bajao

College of HRM

9:00 – 10:30 AM

Proper

Fernandez

Speaker

10:30 – 10:45 AM

10:45 – 11:30 AM

Certificates and Tokens

11:45 – 12:00 NN

Remarks

Bachanicha

College of HRM

Welcome

Mr.

Dean,

Seminar

Mr. Angel

Resource

Snacks

Giving of

Closing

Mr. Rafael

Faculty,

Mr. Roel Monsanto

Emcee

**Proposed Output Matrix
Seminar Workshop of Hazard Analysis and Critical Control Point**

Objectives	Topic	Speaker	Venue	Budget	No. of Hours
<ul style="list-style-type: none"> Explain the importance of food handling practices Develop good personal hygiene Discuss the do's and don'ts while preparing the food 	Seminar Workshop on Hazard Analysis and Critical Control Point	Mr. Angel Fernandez	Audio Visual Room (AVR) Old Annex Building in University of Cebu in Lapu-Lapu and Mandaue	Proposed Budget: P 7, 000.00 Speaker's fee: P 2, 000.00 Snacks: P 4, 000.00 Certificates: P 1, 000.00	Total No. of Hours: 4 hours Registrations 8:00 – 8:30 AM Invocation 8:30 – 8:35 AM Philippine National Anthem 8:35 – 8:40 AM UC Hymn 8:40 – 8:45 AM Welcome Address By: Mr. Grayfield T. Bajao 8:45 – 9:00 AM "Seminar Proper" Mr. Angel Fernandez 9:00 – 10:30 AM Snacks 10:30 – 10:45 AM Open Forum 10:45 – 11:30 AM Giving of Certificates 11:30 – 11:45 AM Closing Remarks 11:45 – 12:00 NN

CHAPTER 3

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary of findings, conclusions and recommendations.

Summary of Findings

It is found that the most of the respondents are in the adolescent stage, ages 18-21 (63.4 %), majority are female (71%), all are single and are second year students in Hotel and Restaurant Management.

It was found that the respondents always practiced the wearing of the proper chef's uniform, jewelries removed during the laboratory hours and the fingernails are clean and short with no false-nails or nail polish as part of their personal hygiene.

But it can be shown on the cross tabulation that most of the respondents sometimes practiced all the areas of personal hygiene. So generally speaking, although there are some areas that they always practiced, but the overall assessment showed that they sometimes practiced all the necessary requisites for personal hygiene.

On the aspect of food preparation, they always practiced mise en place (putting things in order) during the operation. They always use safe water in cleaning the ingredients; keep the raw products separate from ready-to-serve foods. Moreover, they wash fresh fruits and vegetables with plain water to remove surface pesticides residues and other impurities such as soil particles.

But looking closely on the result of cross tabulation of the profile and their food preparation practices, it was found, as shown on the table 4, that most of the respondents sometimes practiced the necessary requisites of food preparation.

On the other hand, was found in the aspect of cooking, they sometimes practiced the necessary requisites in cooking such as using a thermometer to ensure food reaches the proper temperature during cooking. It is strengthened on the results of the cross-tabulation that most of the respondents are clustered in the sometimes practiced level.

On the aspect of food serving, they always practiced sanitizing their hands before serving the food with sanitized and clean utensils. But looking at the cross-tabulation, it shows that most of the respondents sometimes practiced the necessary requisites of food serving.

But the sample data do not provide sufficient evidence to say that age, gender, civil status and year level has a relationship on their food handling practices. In fact, chi-square tests was not performed on civil status and year level since the respondents are all single and are all 3rd and 4th year students. SPSS would detect it as a constant.

CONCLUSION

The profile of the respondents has no significant relationship with Food Handling Practices. The age, gender and civil status have no significant relationship with Food Handling Practices of University Canteen.

RECOMMENDATIONS

Based on the conclusions drawn, the following are recommended:

1. Conduct a Food Handling Practices Seminar that can increase canteen servers' awareness and knowledge of food handling practices.
2. Constant monitoring of canteen services if it is practicing proper food handling practices.
3. Conduct further research study on canteen's food handling practices.

REFERENCES

Books:

David Mcsane, Nancy Rues, Richard Linton, "Food Safety and Sanitation Fourth Edition", 2005 Pearson Education, Inc.
Galves, Ernestor S., HRM 1E: Principles of Hygiene, Safety and Sanitation, Revised Ed., University of Cebu.

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