

SANITATION PRACTICES AMONG UCLM CANTEEN CONCESSIONAIRES: A SELF-EVALUATION SURVEY

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ABSTRACT

In a university, it is a must for canteen operators or concessionaires that there will be proper sanitation in relation to food preparation and handling. Moreover, good hygiene and safe water are also essential to ensure good health and safe eating of the customers. Sanitation is very important in order to keep good health. The lack of these important components may cause many diseases and the spread of it. Foodborne disease is a common, but preventable, burden of illness worldwide. In line with this, it is critical for the researchers to do action, focusing on preventing disease transmission within the food industry. Hence, the researchers wanted to find out the sanitation practices of UCLM Canteen Concessionaires.

The study determined the sanitation practices among UCLM canteen concessionaires. The findings of which served as the basis for the proposed action plan. Specifically, this study profiled the respondents in terms of Age, Gender, Educational Attainment and Health Clearance. It also determined the Sanitation Practices used by the respondents and the relationship between the respondents' profile and the sanitation practices used; and the proposed action plan.

Descriptive Correlational design was used. The statistical tools that were utilized in this study were Simple Percentage, Weighted Mean and Chi Square. The respondents of the study were the UCLM Canteen Concessionaires. There were 15 canteens and a total of 44 canteen staff in the university.

Majority of the respondent's belonged to 21 to 35 years old. Majority were female and most are high school graduates. All of the canteen concessionaires used proper sanitation practices. Findings revealed there is no significant relationship between the respondent's profile and the sanitation practices since sanitation practice is constant and all of them practiced proper sanitation. Furthermore, there was no significant relationship between profile of the respondents and the sanitation practices.

Based on the findings, the researchers recommend the following: (A) a health teaching program must be done to strengthen the knowledge and enhance the sanitation practices of the UCLM canteen concessionaires; (B) student's affairs office should be informed of the action plan proposed; (C) and future researchers can continue to conduct a study regarding the sanitation practices of UCLM canteen concessionaires and have the teaching and non-teaching personnel, visitors and students as the respondents of the study.

Keywords: *Health Clearance, Concessionaires, Sanitation Practice, Canteen*

INTRODUCTION

In a university, it is a must for canteen operators or concessionaires that there will be proper sanitation in relation to food preparation and handling. Moreover, good hygiene and safe water are also essential to ensure good health and safe eating of the customers. Sanitation is very important in order to keep good health. The lack of these important components may cause many diseases and the spread of it. Food borne disease is a

common, but preventable, burden of illness worldwide. In line with this, it is critical for the researchers to do action, focusing on preventing disease transmission within the food industry.

Sanitation within the food industry means the adequate treatment of food-contact surfaces by a process that is effective in destroying vegetative cells of microorganisms of public health significance, and in substantially reducing numbers of other undesirable

microorganisms, but without adversely affecting the food or its safety for the consumer (George, 2008).

Over 70,000 Filipino children have died of diarrhea in span of seven years. It was co-conducted with the Department of Health and United Nations Children Emergency Fund (UNICEF), this figure makes diarrhea the fourth leading cause of deaths among children less than five years old and the third leading cause of illness among the children and it is expected to cause 10,000 deaths every year. Meanwhile, health specialists revealed that the Philippines ranks second among 13 countries included in the census in terms of the number of diarrhea cases (DOH, 2014).

Furthermore, based on the five-year monitoring of the City Health Services Office (CHSO) in Cebu, food and water-borne diseases from 410 in 2005 increased to 1,938 cases in 2010. Among the food and water-borne diseases being monitored, gastroenteritis topped the list followed by typhoid fever and amoebiasis (DOH, 2010).

In connection with, food poisoning can be caused by eating food contaminated with bacteria, viruses, chemicals or poisonous metals such as lead or cadmium. Most food poisoning, however, is caused by bacteria. It is important to remember that the same food handling practices are used to prevent all food poisoning diseases. Washing your hands with soap and drying them on a paper towel or with a clean cloth is the best way to stop the spread of bad bacteria (DOH, 2010).

The researchers are from University of Cebu Lapu-Lapu and Mandaue and have observed that there were some canteen staff who are not practicing the proper sanitation practices such as not wearing hairnets, gloves, apron and not removing jewelries when serving foods. It was also found out that their nails were not cut short. In addition, researchers noticed that they have no proper placement of their food display in which the other foods were prone to contamination and a case of expired food item sold by a particular canteen has been reported. The UCLM canteen had only few workers in which they are not able to clean up the tables after the consumers had eaten and researchers have seen that some canteen concessioners who served the food were also the one who received and handover the money, the food handlers are sweating while preparing and serving food. Foods are exposed to flies and dirty surfaces with a risk of cross contamination. Researchers also observed that some of the health clearances of canteen staff are

expired or not updated.

Hence, the researchers had determined the sanitation practices among the canteen concessionaires of University of Cebu Lapu-Lapu and Mandaue. The findings of which served as the bases for a proposed sanitation seminar.

Framework

This study is anchored on Nola Pender's Health Promotion Model (HPM) which is defined as behavior motivated by the desire to increase wellbeing and actualize human health potential. It is an approach to wellness. On the other hand, health protection or illness prevention is described as behavior motivated desire to actively avoid illness, detect it early, or maintain functioning within the constraints of illness. Health promoting behavior is the desired behavioral outcome and is the end point in the HPM. Health promoting behaviors should result in improved health, enhanced functional ability and better quality of life at all stages of development. The final behavioral demand is also influenced by the immediate competing demand and preferences, which can derail an intended health promoting actions. One of the sub concept of health promotion model states that competing demands are those alternative behaviors over which individuals have low control because there are environmental contingencies such as work or family care responsibilities (Pender, 2006).

Pender's Health Promotion Model proposed a framework for integrating nursing and behavioral science perspectives of factors influencing health behaviors. The framework offered a guide for exploration of the complex bio-psychosocial processes that motivate individuals to engage in behaviors directed toward the enhancement of health (Pender, 2006).

According to Pender, personal hygiene is important in each individual by doing so there is less chance of acquiring different types of diseases. Personal hygiene is the base for a disease free life. Hygiene starts at birth and continuous lifelong. Health is the most difficult and critical part of life that is hard to maintain. It need discipline and practice. Being functional in our society is something you should value; being healthy is not just being free from any illnesses and diseases but also being physically fit and mentally stable and socially comfortable (Slade, 2010).

Based on Pender's HPM, in the evolution of time,

health has become the most crucial issue among individual. It has been neglected and has been slowly taken for granted as to the Primary Level of Care. It is one aspect of our lives that when altered would result to disarray in the overall functioning of an individual. Such alterations would lead to diseases that disrupt activities of the daily living. Beliefs are powerful shapers of behavior. Health behaviors are based on beliefs. Attitudes about health and personal vulnerability (which are learned in the family unit) greatly influence behavior. Socialization influences the development of belief about health care. These beliefs determine person's willingness to participate in health care (DeLaune & Ladner, 2006). Personal health promotion is usually provided through health education. As an important function of nurses, physicians, and allied health professionals, health education is principally concerned in eliciting useful changes in human behavior. The goal is the inculcation of sense of responsibility for an individual's own health and shared sense of responsibility for avoiding injury to the health of others (Pender, 2006).

This study is also anchored on Florence Nightingale's Environmental Theory which had environmental aspects of ventilation, warmth, quiet, diet, and cleanliness that remains a significant component of current nursing until today. Moreover the disposal of waste, such as chemicals and other toxic also pose challenges to healthcare professionals to reconsider the concept of a healthy environment. Nightingale believed that the environment was the major component creating illness in a patient; hence regarded disease as "the reactions of kindly nature against the conditions in which we have placed ourselves" (Balita & Octaviano, 2008).

Nightingale also defined health as a state of being well and using every power the individual possesses to the fullest extent. According to Nightingale, disease is "a reparative process that nature instituted from a want of nutrition". She supposed that prevention of disease through environmental control will greatly uplift the maintenance of health. She believed that the sick, poor people would benefit from environmental improvements that addressed their physical and mental aspects. The environment paradigm in Nightingale's model is understandably the most important aspect. Her observations taught her that unsanitary environments contribute greatly to ill health, and that the environment can be altered in order to improve conditions (Balita & Octaviano, 2008).

Objective of the Study

This study determined the types of sanitation practices of UCLM canteen concessionaires in Barangay Looc, Mandaue City. The findings served as bases for a proposed action plan. Specifically, it answered the following questions; the profile of respondents in terms of age, gender, and educational attainment; the health clearance possessed, the respondent's sanitation practices used; the significant relationship between the profile and the sanitation practices and the proposed action plan.

MATERIALS AND METHODS

The study utilized a descriptive-correlational method to determine the sanitation practices among UCLM concessionaires. Moreover, it determined the relationship between the respondent's profile and sanitation practices. Descriptive survey method was used for gathering data, while the correlational research helped for the treatment. It was conducted in the University of Cebu-Lapulapu and Mandaue. The university has 3 canteens located at the quadrangle old building, annex building 5th floor, and near the Chapel. There are elementary, high school and college students that comprises the university. The respondents were the UCLM canteen concessionaires. There are 15 canteens and a total of 44 canteen staff in the university. However only 12 canteens were open due to semestral break thus only 31 respondents were available during gathering of data. The tool used was a customized evaluation form taken the Quality Management Resources which is customer satisfaction survey. The questionnaire was divided into two parts, namely: Part 1 dealt with the respondents profile and health clearance; Part 2 determined the sanitation practices among UCLM canteen concessionaires. The respondents were instructed to place a check mark to the corresponding column with 3 for always practice, 2 for sometimes and 1 for never practice. It determined the sanitation practices based on the following categories: housekeeping, utensils and equipment, food and personnel.

A permit letter was given to the Dean, asking permission to conduct a research study, another letter was given to the school clinic physician for the approval to allow the researchers to conduct a study in the area. The researcher gathered the significant data needed to complete the research study. The data collected was analyzed utilizing the statistical treatment below. Simple percentage, weighted mean, and chi-square was used to treat the data.

RESULTS

Table 1 presents the profile of respondents, table 2 presents the health clearance used, table 3 presents the type of sanitation practices used by the UCLM canteen concessionaires and table 3 presents the relationship between profile and types of sanitation practices.

Table 1: Profile of the Respondents

Variable	Frequency	Percent
AGE		
18 to 20	9	29
21 to 35	14	45
36 to 46	7	23
52	1	3
GENDER		
Male	11	35
Female	20	65
EDUCATIONAL ATTAINMENT		
Elementary	3	10
HS Level	11	35
HS Graduate	12	39
College level	5	16

Table 1 presents the profile of the respondents. It revealed that majority of the respondents belonged to 21 to 35 years old, female, and high school graduate.

According to Erik Erikson, young adulthood and indicator of positive resolution is being involved in commitments and mutuality with others, collaboration in work and affiliations (Balita & Octaviano, 2008). In addition, the median age of the food handlers was 22 years and among the 455 subjects 99 (21.8%) have had food hygiene training.

Moreover, there are many gender issues in sanitation which need to be taken into account to

improve development efforts. Many deal with the different task men and women have, in fact just about all tasks related to sanitation are women's duties. Women have more knowledge, insights, and interest in technological and other choices which need to be made during all stages of sanitation facility development. It is important that this knowledge is tapped, for more efficiency, improved impact and sustainability (Fonyuy, 2014). Furthermore, level of educational attainment answered high consideration of the influence of the health promotion behavior (Caudal, 2008).

Table 2: Health Clearance

Variable	Frequency	Percent
With current Health Clearance	22	71
Without Health Clearance	9	29

Table 2 presents the health clearance possessed by the canteen concessionaires. It revealed that 71% of the respondents had current health clearances. Moreover, to guarantee that the food handlers are free from any kind of disease that may harm their customers, health certificates are issued to them. Examinations are conducted to test whether these food handlers who are applying for sanitary permits are free from infectious diseases. According to Section 15 of Presidential Decree No. 856 (Health Certificates), health certificates are only issued to the vendors or food chain/establishment employees who are complete in the sanitation requirements that are necessary. Section 19 (Food Handlers) of Presidential Decree No. 856, health certificates are required for every food handlers before they get employed (DOST, 2008).

Table 3: Sanitation Practices Used By Canteen Concessionaires

Sanitation Practices	3	2	1	Mean	Interpretation
HOUSEKEEPING					
1. The canteen floor is polished before closing or after work.	28	3	0	2.90	Always
2. The windows and the walls are cleaned before closing or after opening.	16	15	0	2.52	Always
3. The dirty dishes are immediately removed.	23	7	1	2.71	Always
4. The garbage bin is properly covered.	26	5	0	2.84	Always
5. The kitchen sink is kept clean before and after use.	30	1	0	2.97	Always
6. The dining area is immediately cleaned every after use.	16	12	3	2.42	Always
7. Cleanliness and sanitation inside the facility is being observed.	28	3	0	2.90	Always
Over-all mean	2.75				Always

Sanitation Practices	3	2	1	Mean	Interpretation
UTENSILS AND EQUIPMENT					
8. Eating utensils are properly cleaned and dipped in hot water.	23	3	5	2.58	Always
9. Eating utensils are washed in running water.	23	6	2	2.68	Always
10. The equipment are properly cleaned and stored.	31	0	0	3	Always
11. The cooking utensils are properly cleaned and stored in a clean, dry place.	29	2	0	2.94	Always
12. The shelves for foods are cleaned every after use.	23	8	0	2.74	Always
13. Food containers are clean before and after use.	28	2	1	2.87	Always
Over-all mean	2.80				Always
FOOD					
14. Display containers for food are covered properly.	13	10	8	2.80	Always
15. Each or every food items is placed in each respective food container.	30	1	0	2.16	Sometimes
16. The food that is being served is well cooked and well prepared.	31	0	0	3	Always
17. Food that is bought from the market is fresh.	27	4	0	2.87	Always
18. Leftover food is properly stored.	25	6	0	2.81	Always
19. The food that is being selected is those without signs of decay.	26	4	1	2.81	Always
20. The canteen personnel avoided in buying vegetables that are cut or diced into pieces or peeled.	18	9	4	2.45	Always
Over-all mean	2.72				Always
Personnel					
21. The canteen staff wears hair net.	10	14	7	2.10	Sometimes
22. There is a separate cashier from the food handlers.	15	10	6	1.81	Sometimes
23. The canteen staff wears food gloves when handling food.	6	11	14	1.74	Sometimes
24. The sanitary permits of the canteen are displayed.	30	1	0	2.97	Always
25. The c anteen personnel performs handwashing before and after handling food items.	24	7	0	2.78	Always
26. Canteen staff observed cleanliness during handling food items.	28	2	1	2.87	Always
Over-all mean	2.38				Always
Grand mean	2.68				Always

Table 4: Relationship between Profile and Types of Sanitation Practices

Sanitation Practices		%
HOUSEKEEPING		
1. The canteen floor is polished before closing or after work.	Always	90
2. The windows and the walls are cleaned before closing or after opening.	Always	52
3. The dirty dishes are immediately removed.	Always	74
4. The garbage bin is properly covered.	Always	84
5. The kitchen sink is kept clean before and after use.	Always	97
6. The dining area is immediately cleaned every after use.	Always	52
7. Cleanliness and sanitation inside the facility is being observed.	Always	90
UTENSILS AND EQUIPMENT		
8. Eating utensils are properly cleaned and dipped in hot water.	Always	74
9. Eating utensils are washed in running water.	Always	74
10. The equipment are properly cleaned and stored.	Always	100
11. The cooking utensils are properly cleaned and stored in a clean, dry place.	Always	94
12. The shelves for foods are cleaned every after use.	Always	74
13. Food containers are clean before and after use.	Always	90

Sanitation Practices		%
FOOD		
14. Display containers for food are covered properly.	Always	42
15. Each or every food items is placed in each respective food container.	Always	97
16. The food that is being served is well cooked and well prepared.	Always	100
17. Food that is bought from the market is fresh.	Always	87
18. Leftover food is properly stored.	Always	81
19. The food that is being selected is those without signs of decay.	Always	84
20. The canteen personnel avoided in buying vegetables that are cut or diced into pieces or peeled.	Always	58
PERSONNEL		
21. The canteen staff wears hair net.	Sometimes	45
22. There is a separate cashier from the food handlers.	Always	48
23. The canteen staff wears food gloves when handling food.	Never	45
24. The sanitary permits of the canteen are displayed.	Always	97
25. The canteen personnel performs handwashing before and after handling food items.	Always	77
26. Canteen staff observed cleanliness during handling food items.	Always	90

Table 3 and 4 presents the different sanitation practices used by canteen concessionaires, with 26 questions answerable by always, sometimes, never. It was found out that majority of the respondent's "always" follow the sanitation practices under housekeeping, with an overall mean of 2.75; with an overall mean of 2.80 they "always" follow the practices under utensils and equipment; with an overall mean of 2.72 they "always" follow the practices under food category; with an overall mean of 2.38 they "always" follow the practices under the category of personnel.

Food handlers are also required to wear clean working garments, specifically caps or hairnets. They must maintain a high degree of personal cleanliness and restrain hair as necessary (Guerrero *et al.*, 2012).

According to Section 15 of Presidential Decree No. 856 (Health Certificates), health certificates are only issued to the vendors or food chain/establishment employees who are complete in the sanitation requirements that are necessary. Section 19 (Food Handlers) of Presidential Decree No. 856, health certificates are required for every food handlers before they get employed. Sanitary permits are necessary in ensuring the public that the food establishments, or any place where food and beverages are served, manufactured, processed, stored or sold, that they are patronizing are clean. Also, these sanitary permits must be posted in a noticeable or visible area in that certain food establishment (DOH, 2014).

Table 5: Relationship between Respondents Profile and Sanitation Practices

Variables	Computed X ² Value	Critical X ² Value	Interpretation
Age* Sanitation Practices	0.414	47.87 <i>df</i> = 9 <i>P</i> = 1.000	Not Significant
Gender* Sanitation Practices	1	59.58 <i>df</i> = 3 <i>P</i> = 0.8013	Not Significant
Educational Attainment* Sanitation Practices	2.09	13.60 <i>df</i> = 9 <i>P</i> = 0.9900	Not Significant
Health Clearance* Sanitation Practices	1.144	120.86 <i>df</i> = 3 <i>P</i> = 0.7665	Not Significant

The data above indicate that there's no significant relationship between Age, Gender, Educational Attainment and Health Clearance by the 31 respondents. Findings showed that the respondents profile and sanitation practices on housekeeping, utensils and equipment; in food and personnel have no significant relationship. With the computed chi value of 0.414 with a critical value of 47.87 with a degree of freedom of 9 and with a *p*-value of 1.000, therefore there was no significant relationship between Age and Sanitation Practices.

With the computed chi value of 1 with a critical value of 59.58 with a degree of freedom of 3 and with a *p*-value of 0.8013, therefore there was no significant relationship between Gender and Sanitation Practices. With the computed chi value of 2.09 with a critical value of 13.60

with degree of freedom of 9 and with a p -value of 0.9900, therefore there was no significant relationship between Educational Attainment and Sanitation Practices. With the computed chi value of 1.144 with a critical value of 120.86 with degree of freedom of 3 and with a p -value of 0.7665, therefore there was no significant relationship between Health Clearance and Sanitation Practices.

DISCUSSION

Based on the study conducted by (Fonyuy, 2014) majority are females and it reveals that the respondents choose most of the time concerning their practices on environmental sanitation. Majority of the respondents belonged to 21-40 years old, are female and are on the masteral level of educational attainment answered high consideration of the influence of the health promotion behavior.

Moreover in the study of Kleter and Marvin (2009), the paper reviews various activities and previous reports that describe methods to select indicators that can be used for the purpose of early identification of hazards. The findings shows that these indicators have been divided over three different environments, including the environment surrounding food production; the food production chain from farm to fork and lastly the consumers. Changes in these indicators are signals that may require follow-up action. Besides indicators that are linked to specific kinds of hazards, the indicators used for vulnerability assessment can help identifying weak spots in the food production system that are sensitive to a broader range of hazards. Based on the

various indicators for emerging hazards that have thus been identified in literature, a set of generic indicators is provided that can be useful for the early identification of hazards.

CONCLUSION

Majority of the respondent's belonged to 21 to 35 years old. Majority were female and a high school graduate. All of the canteen concessionaires used proper sanitation practices. Findings revealed there is no significant relationship between the respondent's profile and the sanitation practices since sanitation practice is constant and all of them practiced proper sanitation.

RECOMMENDATIONS

Based on the findings gathered by the researchers, the canteen concessionaires of UCLM, Brgy. Looc, Mandaue City, Cebu always practiced the sanitation practices. Moreover, there was no significant relationship between profile of the respondents and the sanitation practices. With the findings that the researchers identified, the researchers recommend the following: (A) Health teaching program must be done to strengthen the knowledge and enhance the sanitation practices of the UCLM canteen concessionaires. (B) Student's affairs office should be informed of the action plan proposed. (C) Future researchers can continue to conduct a study regarding the sanitation practices of UCLM canteen concessionaires and have the teaching and non-teaching personnel, visitors and students as the respondents of the study.

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