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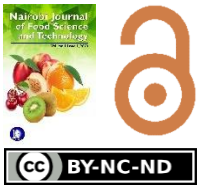

Investigating the Safety of food in the chop bars in Ghanaian Streets

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Abstract

Chop bars have become a vital part of the lives of Ghanaians since they offer fast-moving food against the rise in demands by people of varied tastes and preferences. However, as the number of chop bars continues to rise, the number of food borne illness, outbreaks are reportedly on the rise. This essay, however, examines and investigates the safety of food in the chop bars which have become predominant in the Ghanaians streets. Data was collected through field research methods such as interviews, use of questionnaire, and observation. The findings revealed that causes of food borne illness can be viral, bacterial, parasitic or chemical. Though the two leading causes are viral and bacterial (Liu, 2010). It further revealed that public exposure to unsafe food handling practices is likely to increase with the increasing popularity of eating places (Mitchell et al, 2007). Baş et al (2006) emphasized that "…changing lifestyle of employees and diner calls for the need for better and more effective ways of controlling food at chop bars to prevent food borne illness." Cushman et al (2001) on the other hand reported that as food borne illness outbreaks are on the rise and food borne illnesses have the potential to affect customers through a variety of ways.

Keywords: Chop bars, food, safety of food

1.0 Introduction

Food safety is a critical issue facing the food service industry. An understanding of food safety procedures and potential factors that cause food borne illness is very important for all food handlers. Gracey (1981) stated “only knowledgeable, motivated, and skilled employees who are trained to follow the proper procedures together with management that effectively monitors employees’ performances can ensure food safety’’. Food service workers play a major role in prevention and control of outbreaks of food borne illness. Chop – bar operators typically employ a number of employees to provide services to their customers. It is not uncommon that chop – bar operators employ with no food service experience and low educational levels. As a result, the employees may have less awareness of and concern about principles of food safety and hygienic practices. It is very important for chop – bar operators to educate both their workers about food safety, train them to use appropriate food handling procedures, and monitor their performance. Several studies have been conducted to assess food service employees’ food safety knowledge, attitudes, practices, and training. Emmet (2000) studied foodservice employees’ attitudes, practices, and knowledge of food safety. Results showed that the workers had less knowledge about food safety and practices. Good sanitation practices in chop – bars are important not only to reduce direct and cross-contamination of food but also to increase the morale and efficiency of workers and to satisfy the customers from an aesthetic point of view. Food-handlers need proper hygiene practices concerning cleanliness of hands and work clothes and correct methods of handling food and utensils. They must not smoke cigarettes while preparing or serving food (Harrigan, 1998) or work in any area of a food service establishment while infected with any communicable disease. Training the staff on the principles of handling food in all its stages is important. It has been reported that most outbreaks of food borne diseases result from faulty food handling practices (Harrigan, 1998). The researcher with her experience in chop bars viewed that the safety of the food at the chop bar mostly depended on the role of the law enforcers. This question was therefore posed to the law enforcers on the operations of chop operators. The first question that was posed to the law enforcers was that ‘’ are there laws and regulation that can be applied to chop bars’’. With this question, all of the law enforcers who participated in the study represented indicated ‘’Yes’’ meaning that there are laws and regulations applying to chop bar operators. Table 4.32 below illustrates this relationship.

2.0 Problem statement

The issue of food borne is very common in Ghana. The causes have been linked to improper food hygiene, dirty dining areas, bad personal hygiene and improper cleanliness during food service operation. In some cases, chop bar operators have received warning letters and were been fined by the Ministry of Health and local state authorities regarding the cleanliness issue. In addition, the researcher has observed that workers at chop – bar in the study area lacked training which can impact on the total number of correctly practiced food safety behaviors and hygienic practices.

3.0 Research Design

According to Patton (1990) research design entails the detail of exploration of the specific case, which could be community, person or organization. Generally, research design is a framework for collecting and analyzing data. Generally, research design is a logical model of proof that allows the researcher to draw inference concerning the causal relationship among the variable under investigation. The study adopted both quantitative and qualitative research approaches. Qualitative research was considered for this study because it enabled the researcher to empirically evaluate the effectiveness of a food safety training program and hygienic practices of chop – bar workers. Cook &Campbell give the following ways which the researcher also used:

- 'The study investigated a real-life situation.
- The researcher interacted with respondents.
- The study attempted to avoid prejudgment; the goal was to try to capture what is happening, present respondents on their own terms and to try to represent them from their perspectives so that the reader can see their views. This process is always imperfectly achieved – it is a quest' (Cook & Campbell 1979:34).

For the researcher to be able to answer the research questions comprehensively and thoroughly without bias, she needed to carry out in-depth interviews. Observations of the interviewees' behaviour during interviews and verbal interactions were also necessary in order to find out the various views of the participants.

3.1 Sampling Procedures and Sample

The researcher identified 75 chop bars in the study. Out of this 75 chop bars, 33 of them were conveniently selected to participate in the study. This number enabled the researcher to collect detailed data from the respondents. In each chop bar, the stratified random sampling technique was used to obtain 2 female workers and 1 male worker; 2 male consumers and 2 female consumers. Stratified random sampling implies the selection of a sample in such a way that the researcher is assured that certain sub- groups in the population will be represented in the sample in proportion to their numbers in the population (Patton, 1990). In all, 231 respondents participated in the study which comprised of 99 workers and 132 dinners or consumers.

3.2 Interviews

A research interview is a survey instrument, which involves a direct conversation between the interviewer and the interviewee with the purpose of obtaining useful information for the research (Cohen & Manion 1989). Interviews provide in-depth information about a particular research issue or question. Because the information is not quantifiable (that is, not amenable to statistical analysis), the interview often is described as a qualitative research method. A successful qualitative interview is more like an intimate and personal sharing of a confidence with a trusted friend and the information given must be treated likewise with respect" (Morse & Field, 1995). The main advantage of interviews is that of direct interaction, which allows for greater depth of information relevant to the topic concerned. Interviewing was the main instrument the researcher used to gather information. The researcher carried out forty different interviews in order to obtain key information. The interviews were with twenty chop bar operators and twenty consumers.

3.3 Questionnaires

According to McMillan & Schumacher (2001), the questionnaire is the most widely used technique for obtaining information from subjects. A questionnaire is relatively economical, has the same questions for all subjects and can ensure anonymity. Questionnaires can use statements or questions but in all cases the subject is responding to something written for specific purposes. The questionnaire in this study was a written close-ended questionnaire which was more or less a written survey. The questionnaires were given to seventy chop bar operators and seventy consumers. The researcher did not follow any pattern but gave the questionnaires to any who were willing to participate. They were given about one week to complete the questionnaire and bring it back to the

researcher. The questionnaire was given to get an overview of what these participants thought was the effectiveness of a food safety training program and hygienic practices of chop – bar workers.

4.0 Data Analysis

After sorting out the questionnaires, the data was computed and analyzed using the Statistical Package of Social Sciences (SPSS) version 16.0. The statistical analysis such as frequencies and percentages was used to answer the research questions. Content or thematic analysis methods assisted in classifying data according to statements made by respondents, concepts put forward and various keywords. This assisted the researcher in segmenting concepts and issues put forth commonly by respondents. Such analysis of data assisted in focusing on the concepts given by respondents and supports the meaning behind every response.

5.0 Results

Table 4.32

Laws and regulation that can be applied to chop bars

	Frequency	Percentage
Yes	20	100.0
No	0	0.0
Total	20	100.0

In the bid of implementing the laws and regulations governing the operations of chop bars, the researcher wanted to find out if the law enforcers have ever disposed of all unsafe food in a chop bar. With this statement, all of the law enforcers who participated in the study indicated ‘’No’’ meaning that they had not in any way disposed unsafe food. When the researchers further probed them to explain their views on their response, all of them reported that it was court order or they sent the culprits to court for not complying with the laws governing the chop bar operations. Concerning whether the law enforcers have taken some of the chop bar operators to court, out of 20 law enforcers who participated in the study, 80% indicated ‘’Yes’’, meaning that they had sent some chop operators for prosecution, while 20% claimed that they never sent any defaulter to court. With regard to the prosecution of chop bar operators as a result of hazards, 80% reported ‘yes’ meaning that they have taken samples from the chop bars

and prosecute them for any analyzed hazards, while 20% also indicated ''No''. Figure 14 below illustrates these results.

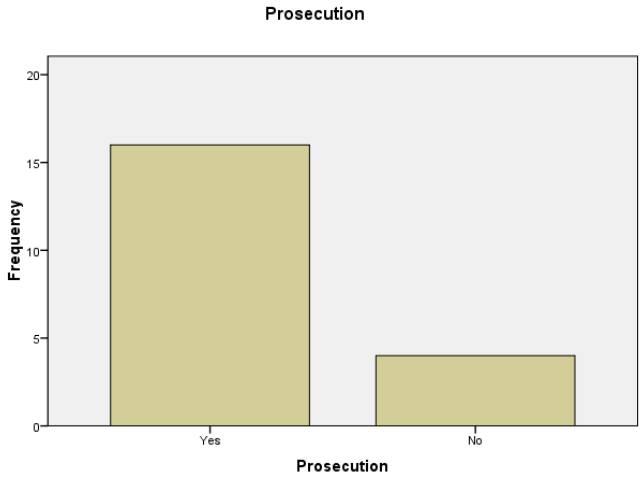

Figure 14: Prosecuted offenders

In addition the researcher wanted to determine the last time the law enforcers send the chop bar offenders to court for prosecution and their responses were presented in the Table 4.33 below.

Table 4.33

Last time chop bar operators were prosecuted for selling unsafe food

	Percentage	Frequency
Weekly	4	20.0
Monthly	11	55.0
Every three month	3	15.0
Six Month	2	10.0
Total	20 100.0	

According to Table 4.33 above, 55% reported that they prosecute the offenders monthly. With regard to the inspection of the medical certificates, all of the law enforcers reported that they do inspect the chop bar operators' medical certificates. Table 4.34 below presents this relationship

Table 4.34

Inspecting of medical certificate

	Percentage	Frequency
Yes	20	100.0
No	0	0.0
Total	20	100.0

Concerning the inspecting of the certificates, 15% claimed that they inspected the certificate on weekly, 25% also claimed that they did the inspection on monthly basis, 45% claimed that they did the inspection on every three months, while 15% also indicated that they did the inspection every six months. Figure 15 below presents this result.

Figure 15: Inspection of certificates

Furthermore, the researcher wanted to find out from the law enforcers the number of chop bars they have closed due to the lack of necessary requirement. With this question, 50% reported that they closed chop bars ranging from 1 to 10, 30% showed 11 to 20 while 20% reported more than 20 chop bars. Table 4.35 below illustrates these results.

Table 4.35

Closed down chop bars due to lack of necessary requirement

	Percentage	Frequency
1 - 10	10	50.0
11 – 20	6	30.0
More than 20	4	20.0
Total	20	100.0

The researcher wanted to find out from the law enforcers if they had organized refresher courses for the chop bar operators and 80% indicated that 'Yes' meaning that they have been organizing workshop or refresher courses while 20% claimed they had not. Table 4.36 below illustrates these findings.

Table 4.36

Organizing training or refresher workshops for chop bar operators

	Frequency	Percentage
Yes	**16**	**80.0**
No	**4**	**20.0**
Total	**20**	**100.0**

In addition the researcher found out from the law enforcers the signs they look for on their inspection to the chop bars and all of the study participants indicated cleanliness.

6.0 Discussion

The study revealed that all the law enforcers who participated in the study represented, indicated that there are laws and regulations applying to chop bar operators, but they have not in any way condemned or dispose unsafe food. In addition, 80% of the law enforcers indicated that they have sent some chop operators for prosecution who do not comply with the rules and regulations. They have also organized/training refresher workshops for chop bar operators; closed down chop bars due to lack of hygienic standards; and also carried out inspection of certificates. Overall, the knowledge level of food handlers on food safety was moderate meaning the respondents had good knowledge on personal hygiene where more than 60% answered correctly. However, some observational studies found that although the food handlers have good knowledge towards food safety they did not always put the knowledge into practice. Manning and

Snider (1993) in Malaysia reported that 81% of their respondents were aware of the law governing the operation of food operators, but only 2% observed those rules. According to Anon (2003), in Uganda, most cases of food borne disease were due to improper handling of food, including the inappropriate use of temperature during food preparation and storage, cross-contamination; poor personal hygiene and inadequate food utensils. This result is supported by Bas *et al.* (2004) who reported that knowledge of critical temperatures of these aspects were low amongst their studied food handlers. Walker *et al.* (2003) also reported that respondents knew the correct temperature of holding hot foods but did not go by it. Food safety is also dependent on personal and environmental hygiene. Due to the nature of chop bar foods literally being prepared and served on the chop bar premises, the physical conditions / preparation area are exposed to the natural elements. They have been further differentiated from the formal sector (restaurants etc). Muinde *et al* (2005) confirmed in their study that such sites do not give proper protection of the foods from dust and smoke from vehicles. Dust has potential to carry many microbes that may be pathogenic if left to settle on prepared foods. Hence it is important that food is covered to protect it from such exposure (Muinde *et al,* 2005).

References

Baş, M., Ersun, A.S., & Kivanç, G. (2006). The evaluation of food hygiene knowledge, attitudes, and practices of food handlers' in food businesses in Turkey. *Food Control, 17* (4), 317-322. doi: 10.1016/j.foodcont.2004.11.006

Cohen, E., Reichel, A., & Schwartz, Z. (2001). On the efficacy of an in-house food sanitation training program: Statistical measurements and practical conclusions. *Journal of Hospitality & Tourism Research, 25* (1), 5-16

Cushman, J.W., Shanklin, C.W., & Niehoff, B.P. (2001). Hygiene practices of part-time student employees in a university foodservice operation. *The Journal of the National Association of College and University Food Service*,37-43.

Emmet A. (2000). The food safety net: Too many holes. *The Scientist.*

Gracey, J. F. (1981). *Meat Hygiene*. London Philadelphia: Bailliere Tindall

Harrigan, W. F. (1998). *Laboratory Methods in Food Microbiology*. 3rd ed. London: Academic Press.p.13-16

Liu, D. (2010). Food borne illness: What you need to know. *Food consumer*. Retrieved fromhttp://www.foodconsumer.org/newsite/Safety/foodborne_illness_1508100343.html.p.59. Thursday, September 6th, 2012

Mitchell, R.E., Fraser, A.M., & Bearon, L.B. (2007). Preventing food-borne illness in food service establishments: Broadening the framework for intervention and research on safe food handing behaviors. *International Journal of Environmental Health Research, 17(*1), 9-24.

Patton, M. (1990). *Qualitative Evaluation and Research Methods (2nd Edition).* Newbury Park, CA: Sage Publications Inc