FOOD SAFETY KNOWLEDGE AND PRACTICES AMONG FOOD HANDLERS AT PRIVATE UNIVERSITY KIOSKS

Naresh Kumar*,

*Department of Medical Laboratory Sciences, Lovely Professional University, Punjab.

ABSTRACT:

This survey was conducted from 18th September 2018 to 2nd October 2018 involving 25 food handlers in 25 food kiosks including the school's mess cafeteria in private university, India. To assess the food safety few question were asked to the shop owners to find out their knowledge about the food safely and related practices. According the finding majority (84%) of the respondents had a wash basin in the kitchen or outside, the facility while the remaining (16%) don't so they are putting the general public at a greater risk of getting infected by cross contamination. In addition, only (28%) of the respondents do have access to antibacterial hand wash or soap at their wash hand basin area compared to the (72%) without thus creating more breeding grounds for the spread of microorganisms.[1] Furthermore, (66%) believes that staff with cuts on fingers or hands should not touch unwrapped food; the other (24%) care less. In addition, majority (88%) of the respondents believed it was vital to distribute unwrapped food wearing gloves while the remaining (12%) had no reason to explain their negligence in not using gloves to distribute unwrapped foods. However, out of all respondents also said that they are not following the instruction of food safety. [2]. Although 4% of the respondents were victims of their own acts due to carelessness. [3] Due to the lack of knowledge people having more chances of food poisoning which can be prevented simply by following the food hygiene practices.

Keywords: - contamination, cross infection food handlers, food poisoning.[4]

Introduction

Food safety and knowledge about the food safety as well practices are different that is why most of the people says we are maintaining hygiene condition but still people are catching the infection and fall ill.[5]

There thousands of the people getting admitted every year in hospitals and cured. Economies wise if we look into this matter huge Burdon on are economy and this burden can be decreased by maintaining the food hygiene practices. [6] So the researcher has design a question to evaluate the hygiene practices in private university kiosks where most of the students are buying the food and eating[7]

Materials and Methods

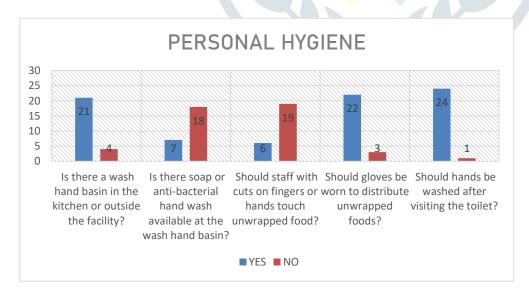
This survey was conducted from 18th September 2018 to 2nd October 2018 involving 25 food handlers in 25 food businesses including the school's mess cafeteria in private university India [8] The survey base question was categories into the five different section and questions were asked in same manner. The survey was filled through personnel interview and their response also.[9] the proper time wa given to the food handlers of kiosks and most of the question were in yes or no option made available in the questionnaire.

Gender:		Variables
Male		20
Female		5
Age bracket:		
18 - 21		15
22–25		8
26≥		2
Educational background:	Marital status:	
≤10 ^{th grade}	1 Married	2
10 th and 12 th grade	20 Single	23
Graduates	4	
RESULT		

RESULT

The kiosks worker involved in the survey were 25 and 24 (96%) people were mostly those who already involved in caterers and food shops. Predominately (80%) were male and ager group was 18-24. The educational level of almost (80%) of the respondents are finished high school grandaunts. 4% have incomplete matric level, while the 16% of the respondents have completed their higher qualification. However, 92% of the respondents are single while the remaining 8% are married with children.[10]

Graph 1: Personal Hygiene



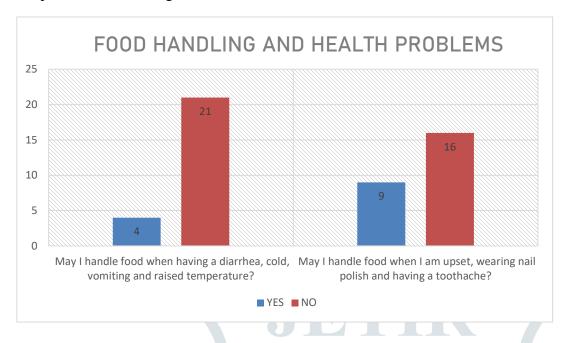
The results displayed above in bar graph 1 shows the level of the respondent's knowledge on personal hygiene. Majority (84%) of the respondents had a wash hand basin in the kitchen or outside the facility while the remaining (16%) don't putting the general public at a greater risk of getting infected by cross contamination. In addition, only (28%) of the respondents do have access to antibacterial hand wash or soap at their wash hand basin area compared to the (72%) without thus creating more breeding grounds for the spread of microorganisms.[11] Furthermore, (66%) believes that staff with cuts on fingers or hands should not touch unwrapped food; the other (24%) care less. In addition, majority (88%) of the respondents believed it was vital to distribute unwrapped food wearing gloves while the remaining (12%) had no reason to explain their negligence in not using gloves to distribute unwrapped foods.[12]

Graph 2: Employees Opinion towards Food Safety



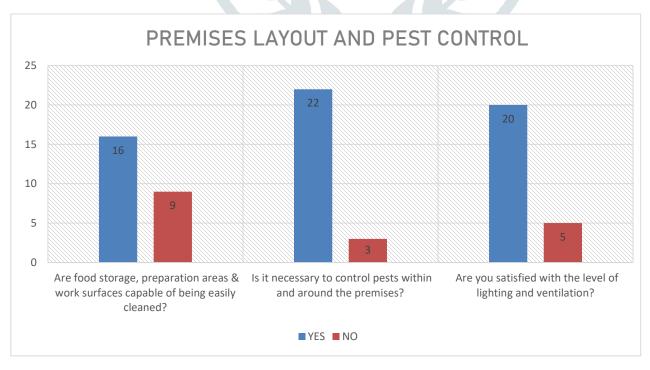
In the first and third graph shown above in blue color, (88%) of the respondents agreed to the fact that it is important to educate them for better food handling compared to the remaining (12%) of respondents.[13] Secondly, (88%) also believed it was absolutely necessary and vital that ready food is harmless for clients and buyers. However, the remaining (12%) disagreed. Finally, the result in graph 2 shows that (56%) of the respondents believed that their handling with food stuff poses no threat to food safety. But in reality is the main causative agent for the distribution of microorganisms through cross contamination.[14]

Graph 3: Food Handling and Health Problems



From the above bar graph 3, majority (84%) of the respondents said they do serve the food while having health issues, but 16% said that they are handling food while affected with common cold, diarrhea, vomiting and raised temperature. Secondly (36%) of the respondents believe they should handle food even while they are upset, wearing nail polish and even having a toothache.[15]

Graph 4: Premises Layout and Pest Control



The results obtained in the above bar 4 graph shows the level of the respondents' knowledge about their premises layout and pest control practices. More than half (64%) of respondents are confident that their food storage, preparation areas and work surfaces are capable of being easily cleaned. Secondly, majority (88%) of the respondents believe it was necessary to control pests within and around the premises. In addition, 80% were totally satisfied with the level of lighting and ventilation.[16]

Controlling pests which acts as living vectors for the spread of germs and infectious diseases as well as keeping the premises clean are part of the safety food practices that stops the spread and multiplication of microorganisms.



Bar Graph 5: Food Practice Questions



100% of the employees believed it was absolutely necessary to separate raw foods from cooked foods. Seventy two percent (72%) of the kiosks workers believe that low temperature inhibits the growth kills harmful germs in/on foodstuff. Also, more than half (56%) of the respondents do not store their unused materials in the refrigerator. Furthermore, (88%) of the respondents believed that the raw materials used in preparing food should be covered.

In addition, 76% of the employees believe that microorganisms most likely cause food poisoning compared to the 24% of respondents who had no idea of what food poisoning or microorganisms was.

Majority (84%) of the respondents check if their materials are still in good conditions before using them. Most of the employees believe that foul odor or state may be result of bacterial contamination and causing food borne disease.[17]

The food safety knowledge of the food handlers was above average. However, a majority of participants had not taken food safety training. Some of the young participants were unaware of the working principle of refrigerators relative to microorganisms' lifecycle.[18] The result above shows the need for regular training of employees on the basic food safety techniques and practices.

CONCLUSION

Food safety and knowledge about the food safety as well practices are different that is why most of the people says we are maintaining hygiene condition but still people are catching the infection and fall ill.

According the above finding it is must that the people involved in food preparation to be provided training before entering into the food processing of preparation or delivery. This would help to prevent food poisoning and other related diseases. Once there are any of the above symptoms the employees must immediately report to their supervisors' and help prevent foodborne illness from transferring to the consumers.

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REFERENCES

- [1] N. Kumar, "Multiantibiotic-resistant Pattern against Pathogenic Bacteria Isolated from Ready to Eat Food in Ludhiana," *Asian Journal of Pharmaceutics (AJP): Free full text articles from Asian J Pharm*, vol. 12, no. 02, 2018.
- [2] N. Kumar and O. Janjir, "Molecular characterization and drug resistance of enteropathogenic bacteria isolated from ready-to-eat food in Ludhiana," *Asian J. Pharm. Clin. Res*, vol. 10, no. 5, pp. 131-134, 2017.
- [3] M. Jevšnik, B. Tivadar, and V. Hlebec, *Hidden factors of high hazard in food industry*. 2004.
- [4] L. Green *et al.*, "Food service workers' self-reported food preparation practices: an EHS-Net study," *International Journal of Hygiene and Environmental Health*, vol. 208, no. 1-2, pp. 27-35, 2005.
- [5] M. Howes-Podoll, S. McEwen, M. Griffiths, and L. Harris, "Food handler certification by home study: Measuring changes in knowledge and behaviour," 1996.
- [6] H. Evans *et al.*, "General outbreaks of infectious intestinal disease in England and Wales, 1995 and 1996," *Communicable Disease and Public Health*, vol. 1, pp. 165-175, 1998.
- [7] L. S. Jay, D. Comar, and L. D. Govenlock, "A video study of Australian domestic food-handling practices," *Journal of food protection*, vol. 62, no. 11, pp. 1285-1296, 1999.
- [8] R. Gent, D. Telford, and Q. Syed, "An outbreak of campylobacter food poisoning at a university campus," *Communicable disease and public health*, vol. 2, no. 1, pp. 39-42, 1999.
- [9] J. E. Ehiri and G. P. Morris, "Hygiene training and education of food handlers: does it work?," *Ecology of food and nutrition*, vol. 35, no. 4, pp. 243-251, 1996.
- [10] D. A. Clayton, C. J. Griffith, P. Price, and A. C. Peters, "Food handlers' beliefs and self-reported practices," *International journal of environmental health research*, vol. 12, no. 1, pp. 25-39, 2002.
- [11] F. L. Bryan, "Risks of practices, procedures and processes that lead to outbreaks of foodborne diseases," *Journal of food protection*, vol. 51, no. 8, pp. 663-673, 1988.
- [12] M. Baş, A. Ş. Ersun, and G. Kıvanç, "The evaluation of food hygiene knowledge, attitudes, and practices of food handlers' in food businesses in Turkey," *Food control*, vol. 17, no. 4, pp. 317-322, 2006.
- [13] D. Barrie, "The provision of food and catering services in hospital," *Journal of Hospital Infection*, vol. 33, no. 1, pp. 13-33, 1996.

- [14] A. A Abushelaibi, M. S Al Shamsi, and H. S Afifi, "Use of antimicrobial agents in food processing systems," Recent patents on food, nutrition & agriculture, vol. 4, no. 1, pp. 2-7, 2012.
- [15] Y. Le Loir, F. Baron, and M. Gautier, "Staphylococcus aureus and food poisoning," Genet Mol Res, vol. 2, no. 1, pp. 63-76, 2003.
- [16] P. Fellows, V. Hidellage, and E. Judge, "Making Safe Food," 1998.
- [17] D. P. Boudreaux, M. A. Matrozza, and M. F. Leverone, "Method for inhibiting foodborne human pathogens and preventing microbial spoilage in refrigerated foods using a Lactobacillus," ed: Google Patents, 1989.
- [18] S. A. Palumbo, "Is refrigeration enough to restrain foodborne pathogens?," Journal of Food Protection, vol. 49, no. 12, pp. 1003-1009, 1986.
- [19] S. A. Palumbo, "Is refrigeration enough to restrain foodborne pathogens?," Journal of Food Protection, vol. 49, no. 12, pp. 1003-1009, 1986.