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Human Obstacles to Food Hygiene in Hospitals

Hospital food service systems are considered one of the most complicated production processes in the hospitality sector as hospital outbreaks of food-borne diseases affect patients, personnel and visitors. It is commonly believed that most outbreaks result from faulty food handling practices.

Mishandling food can permit the proliferation of microorganisms that cause such illnesses, especially among patients with impaired immunity, achlorhydria or both. Therefore, a major goal of the hospital is to provide food that is microbiologically safe because hospitalised patients are more susceptible to infection and consequent morbidity and mortality.

In hospital catering, foodservices staff are the main food handlers, although nurses and other domestic staff may distribute or serve meals. Foodservices staff in hospitals represent a potential source of nosocomial food-borne outbreaks, since they may introduce pathogens into foods during every phase from purchase to distribution.

We conducted a study to evaluate the knowledge, attitudes, and practices among food service staff with regards to food

hygiene in hospitals in Edirne, Turkey and to provide baseline data for implementing HACCP in hospital food services by carrying out a questionnaire by face-to-face interview.

HACCP

Turkey is a candidate country for entrance into the European Union, and great efforts have been made to modify the national legislation to meet new European legislation requirements for improving food hygiene and rendering the Hazard

Analysis and Critical Control Points (HACCP) system mandatory to all food operators (ABGS, 2008). HACCP is a structured and rational approach to the analysis and prevention of potential hazard points at every stage of food operation. It requires operators to enumerate and identify all steps in their activities that are critical to achieving food safety and to identify and evaluate safety measures.

The World Health Organization (WHO) has published a definition for prerequisite “practices and conditions needed before and during the implementation of HACCP and which are essential for food safety”. These are described in Codex Alimentarius Commission’s General Principles of Food Hygiene and other Codes of Practice. Prerequisite programmes include supplier control, written specifications, written cleaning and sanitation procedures, and documented employee and employer training. It defines food hygiene training as fundamentally important and says “All personnel should be aware of their role and responsibility in protecting food from contamination or deterioration. Food handlers should have the necessary knowledge and skills to enable them to handle food hygienically. Those who handle strong cleaning chemicals or other potentially hazardous chemicals should be instructed in safe handling techniques”.

Study Findings

Our study has shown that food service staffs in Edirne hospitals have insufficient knowledge regarding the basics of food hygiene, and also revealed a discrepancy between attitudes and practices towards food safety. There appears to be a lack of knowledge among the food services staff about the critical temperatures of hot and cold ready to eat foods, acceptable refrigerator temperature ranges, periodical control of refrigerators’ and freezers’ thermostat settings, and etiologic agents associated with some food-borne diseases which were very important for HACCP.

A discrepancy between attitudes and practices towards food hygiene was also revealed. Like other previous studies of this kind in Italy and Iran, our study found that although all respondents believed safe food handling is an important part of their job responsibilities and that using protective clothing has reduced the risk of food contamination, in practice, these protective measures have never been fully implemented.

Very little research has been carried out to determine the barriers and problems that may be preventing food handlers from implementing good practice in hospital settings, or even in commercial settings. The majority of food handlers perceived there to be no disadvantages to carrying out food safety actions. Most studies, ours included, identify the main barriers to carrying out food safety actions as time constraints, lack of resources, the design of the work space and the need for recognition of the problem by the management.

Many of the staff were aware of the need to wash their hands, to clean surfaces, utensils and equipment but they also expressed the need for

better location of sinks and said they required more cloths and towels. Many of the food handlers in hospitals suggested they needed more space to work to prevent cross-contamination.

Training and Education

We thought it might have been the consequence of a lack of specific training and empiric adoption of safe attitudes and behaviours based on skill in working and domestic settings. None of the respondents in our study had attended any educational courses on food hygiene and food borne diseases. The need for more information regarding food hygiene through educational courses has been well established by our study and all of the food services staff felt the need for more information. However, in some previous studies no differences were detected between the staff who attended an educational course and those who did not.

Indeed there is uncertainty regarding the efficacy of current food hygiene training. A number of studies have indicated that although training may bring about an increased knowledge of food safety this does not always result in a positive change in food handling behaviour. Food handlers may be aware of the need to carry out certain practices but without the provision of adequate resources these practices become difficult. It has been suggested that knowledge alone is probably insufficient to promote positive attitudes and safe behaviour.

Rennie suggested that this disparity between knowledge and practice occurs because much of the existing training, particularly formal certificated training, is designed using the KAP model. This approach assumes that an individual's behaviour or practice (P) is dependent on their knowledge (K) and suggest that the mere provision of information will lead directly to change an attitude (A) and consequently a change in behaviour. It has been suggested that this model is flawed in its assumption that knowledge is the main precursor to behavioural change. Researchers have argued that the effectiveness of food hygiene training could be greatly improved if it was designed using health education and psychological theory.

In order to design effective training for food handlers there is a need to fully understand all the factors underlying current food hygiene behaviour in the work place. All cognitive theories assume that a person's behaviour is determined by examining their knowledge, attitudes and beliefs and that these factors need to be examined within social and environmental conditions. Consequently, in order to reduce food borne illnesses it is crucial to gain an understanding of the interaction of prevailing food safety beliefs, knowledge and practices of food handlers.

Conclusion

Most of the food handlers in different studies said that they do not always carry out all the safety practices they know they should be implementing. However, it is difficult to estimate the risk attached to the non-implementation of these practices because our knowledge is dependent on reports of the staff themselves. Future research is needed to observe the behaviour of food handlers in their natural work setting. The human obstacles for implementing food safety practices need to be taken into consideration when developing strategies to change food handling practices.

Food hygiene training needs to embody the concept of risk to food handlers, especially those in managerial roles. They need to be aware of the level of risk associated with their business. It should not be forgotten, training in food hygiene would only be effective if the resources and systems were in place to encourage food handlers to implement good practice because the effectiveness of a training programme is dependent on the attitude of managers and the hygiene culture of an organisation.

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