



Cross-sectional study on food safety knowledge, attitude and practices of male food handlers employed in restaurants of King Saud University, Saudi Arabia



Nasser Abdulatif Al-Shabib ^{a, *}, Sameh Hassan Mosilhey ^b, Fohad Mabood Husain ^a

^a Department of Food Science and Nutrition, Faculty of Food and Agricultural Sciences, King Saud University, 2460 Riyadh 11451, Saudi Arabia

^b Department of Food and Dairy Science and Technology, Faculty of Environmental Agricultural Sciences, Suez Canal University, AlArish, Egypt

ARTICLE INFO

Article history:

Received 28 January 2015

Received in revised form

23 April 2015

Accepted 2 May 2015

Available online 16 May 2015

Keywords:

Food safety

Knowledge

Attitudes

Practices

Food handlers

ABSTRACT

The present cross sectional study was conducted on 87 food handlers employed in the King Saud University, Riyadh, KSA to evaluate their food safety knowledge, attitude and practices. Present data highlights that most of the workers belonging to different nationalities have good knowledge regarding personal hygiene, food borne diseases and cross contamination related to food safety. The results show that the food handlers had excellent practices towards food and personal hygiene. Attitude is also a crucial factor that influences food safety, food handlers attitudes were favorable with total of mean scores being 80.76 ± 18.02 and total mean score of 2.69. A significant positive correlation was observed between knowledge with attitudes ($r_s = 0.371$, $p < 0.05$), knowledge with training ($r_s = 0.107$, $p < 0.05$), knowledge with personal hygiene ($r_s = 0.303$, $p < 0.05$), training with personal hygiene ($r_s = 0.174$, $p < 0.05$) and attitudes with personal hygiene ($r_s = 0.173$, $p < 0.05$). Although these correlation were positive and significant but the correlation was not very strong. The study suggests that even though the knowledge, attitude and practice level of the food handlers was satisfactory, some of the aspects related to hygiene and time and temperature control need to be stressed. Continuous education and training should be organized to strengthen food handlers' knowledge in areas which seem to be lacking.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

European Food Safety Authority (EFSA, 2010) reports that around of 48.7% of foodborne illness are associated with food services in the food premises. World Health Organization (WHO, 2007) reported that in the year 2005 alone, nearly 1.8 million people died result to diarrheal cases globally, and the most of them consumed contaminated food and water. According to World Health Organization, every year, more than one-third of the total population in developing countries are affected by foodborne diseases. In an independent study indicated that food handlers play a major reason in contaminating food (Campos et al., 2009), and the most of food poisoning cases occur in schools and universities in worldwide (Sani & Siow, 2014). In Saud Arabia, a large proportion of Saudi people is 'eating out' and the information from Ministry of Health pointed out that many outbreaks food borne diseases have

been occurred in last decade. In 2010, approximately 1647 food borne illness were reported and consumption of food from commercial sources comprised about 62 per cent (1029) of those who fell ill. In another report, in 2011 alone, the 255 incidences for food borne diseases were reported causing illness in 2066 people (Health Ministry Saudi Arabia, 2013). During the year 2006, the main cause of foodborne illness outbreaks in Qassim, a central province of Saudi Arabia, was consuming commercially prepared foods (Al-Goblan & Jahan, 2010). Another incidence of gastroenteritis occurred in Abha city, south-west Saudi Arabia, among customers who had eaten a contaminated ready-made food item (Al-Ahmadi, Elbushra, & Al-Zahrani, 1998). This status reflects a steady increase in the occurrence of food poisoning in Saudi Arabia (Al-Mazrou, 2004). Three factors are playing fundamental role in food poisoning outbreaks concerning food handlers: knowledge, attitude and practice (Sharif & Al-Malki, 2010). To our knowledge, few studies have been carried out to evaluate food safety knowledge and practices of food handlers in our country (Farahat, El-Shafie, & Waly, 2015). However, no previous study has assessed important food safety knowledge, attitude and practices among

* Corresponding author.

E-mail address: nalshabib@ksu.edu.sa (N.A. Al-Shabib).

food handlers in local academic institutions. The motivation to achieve this kind of work refers to thousands of students reliant on prepared meals in restaurants and cafeterias in local universities. Hence, special attention must be given to knowledge and application of food safety and hygiene practices of food handlers. The purpose of this study was to investigate the level of knowledge, attitudes and practices among food handlers from seven restaurants in the main campus of King Saud University, Saudi Arabia regarding food safety.

2. Methods

This transversal study was conducted among 87 food handlers (response rate of 100%) from two restaurants and five canteens in the main campus of KSU in Saudi Arabia.

2.1. Interviews

The information was collected using questionnaire and face to face interviews. The respondents were given sufficient time (20 min) to answer the questionnaire. Informed consent to carry out this survey was approved by General Directorate of Nutrition in KSU, Riyadh.

2.2. Structured questionnaire

A structured questionnaire was designed to conduct the survey. The language of questionnaire was translated to the respective first language of the participants and then translated back to English for publication. The questionnaire was divided into four distinct parts, inspired from previous literature reviews with some modifications. Part 1 included demographic data namely respondents age, sex, race, work experience, field of duty, health card and whether any one of the food handlers participated in any food safety training or not. Part II (knowledge section) included 20 questions, each question consisted of three optional answers. The food handlers were asked about their knowledge pertaining to food borne diseases, their personal hygiene, cross-contamination and time and

temperature control of food stuffs. Eleven close-ended questions were constructed for matters related to personal hygiene practices (Part III). Each question with three possible answers, “Yes”, “No” and “I do not know” were asked in order to reduce the possibility of respondents to choose the correct answer by chance. The questions were grouped under the following categories: personal hygiene, hand washing, cross contamination and food borne diseases. Part IV of the questionnaire contained 30 questions concerning food safety attitude of food handlers. The distribution of questions were under the following criteria: hand washing, cross contamination, food storage, food handling and food shelf life. The answers of respondents for parts II and IV were scaled from 0 to 3 points, each correct answer was given one point whilst incorrect answer or I do not know answer was awarded zero point. For classification, each a respondent who obtained score ($n \leq 1$) points, was considered a poor knowledge, the score range ($1 < n \leq 2$) points, was accept level, the score range ($2 < n \leq 3$) points, was awarded a good level of food safety knowledge and attitude.

2.3. Statistical methods

Data analysis was performed using SPSS software for Windows, version 20.0. The descriptive statistics were used for analysis data of all parts in this study. A *p*-value was less than 0.05, considered statistically significant.

3. Results and discussion

3.1. Demographic characteristics of respondents

The socio-demographic characteristics of 87 food handler's employed in King Saud University, Riyadh, are represented in Fig. 1. All the respondents were males with 55.2% aged between 26 and 35 years. From total respondents surveyed, only 1.1% were aged between 45 and 55 years while none were aged above 56 years. Majority of the handlers in the campus were Arabs (23%), followed by Indians (22%), Filipino (19.5%), Bengali (18.4%) and Nepalese (17.2%). Only four respondents did not have formal education and

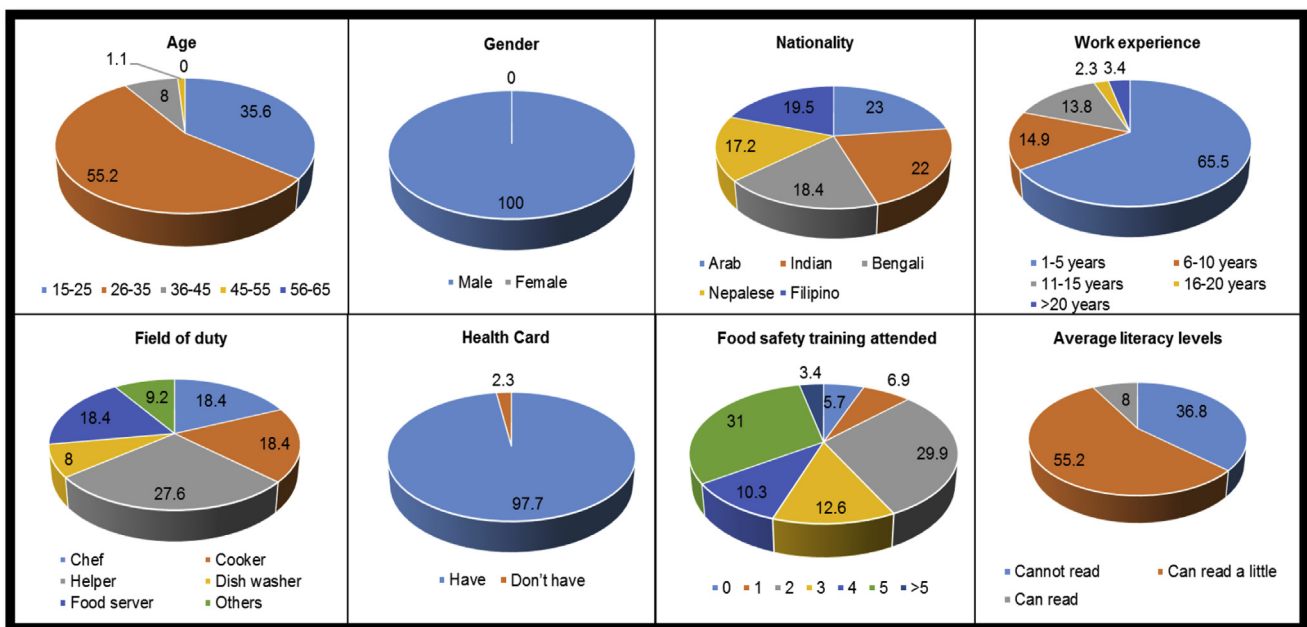


Fig. 1. Demographic characteristics of the food handlers employed at KSU (n = 87).

Download English Version:

<https://daneshyari.com/en/article/6390544>

Download Persian Version:

<https://daneshyari.com/article/6390544>

[Daneshyari.com](https://daneshyari.com)