

Morbidity Status of Food Handlers from Various Food Service Establishments of Cochin, Kerala, India

Research Article

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Article Information: Submission: 01/08/2018; Accepted: 10/09/2018; Published: 14/09/2018

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Abstract

Background: Food handlers were found to suffer from majority of morbid condition like diabetes, hypertension, injuries, anemia, asthma, cough, fever, and abdomen pain. Amongst all these, hypertension, diabetes, injuries, burns, cough and anemia were very common.

Objectives: To study the morbidity status of food handlers from various food handling establishments.

Methods: The study was conducted among 248 food handlers from eight different categories of food service establishments such as railway canteens, hospital kitchens, bakery, street vendors, star hotels, A/C hotels, food processing units, non- a/c hotels from Cochin Corporation, Kerala, India.

Results: The morbidity status from selected food handlers collected in the year 2014-2015 was analysed. In the present study, 96% of food handlers were apparently unhealthy and only 4% were healthy. Hypertension, anemia, dental carries, acute respiratory infections, diabetes mellitus were the diseases that are attributed to their unhealthy conditions

Conclusion: The health status of the food handlers from various food service establishments was found to be unsatisfactory. Awareness about importance of employees health and wellness to improve their productivity needs to be created among food handlers and the management of food service establishments.

Keywords: Morbidity status; Food handler; Food service establishments; Food contamination; Anemia; Dental carries; Acute respiratory infections; Diabetes; Hypertension

Introduction

Nationally and worldwide, it is evident that life-style and food consumption behaviors have changed. The commitment to food preparation at homes decreased and number of meals eaten out of the home increased. Consumers favor convenience and saving time than proper handling and preparation of food [1].

Food handlers were found to suffer from majority of morbid condition like diabetes, hypertension, injuries, anemia, asthma, cough, fever, and abdomen pain. Amongst all these, hypertension, diabetes, injuries, burns, cough and anemia were found to be common [2].

Medical records give a clear picture on the present well-being of the individual. Health problems like anemia, dental carries, halitosis, Phrynoderma, scabies, acute respiratory infections, diarrhea, tuberculosis, diabetes mellitus, and hypertension were assessed. The

chances of food contamination largely depend on the health status of food handlers and their hygiene behaviors and practices [3].

Materials and Methods

The study was conducted among 248 food handlers from eight different categories of food service establishments such as railway canteens, hospital kitchens, bakery, street vendors, star hotels, a/c hotels, food processing units, non- a/c hotels from Cochin Corporation, Kerala, India. The participants for the study were selected by simple random sampling method.

Simple random sampling is a subset of individuals chosen from a larger set of population. Each individual is chosen randomly and entirely by chance such that each individual has same probability of being chosen at any stage during the sampling process and each subset of individuals has the same probability of being chosen for the

sample as any other subset of individuals. This process and technique is known as simple random sampling. Simple random sampling is an unbiased surveying technique [4]. Hence, simple random sampling method was used.

Interviewer met food handlers who agreed to participate in the study with the information sheet and explained the contents in words. Those who were willing to participate in the study again were explained about the study, took consent from them, and give questionnaire. Collected questionnaire from 248 food handlers of contract or permanent status from eight food premises from the Cochin Corporation from November 2014 to June 2015. Data collected by direct personal interview and those who cannot understand English were explained the questions in local language. Morbidity status survey was conducted among food handlers with framed questionnaire. The participants were requested to bring their medical records on the day of study and after the interview; these medical records were verified. Interviewer asked specific questions to them related to morbidity status of food handlers. The responses obtained from food handler were recorded in the questionnaire and based on their response were assessed statistically. Adequate measures were taken to avoid bias. After collecting maximum data about medical history, the details were read to participants to make sure that they were correct. After confirming and validating, these details were coded with individual ID and data was entered.

Results

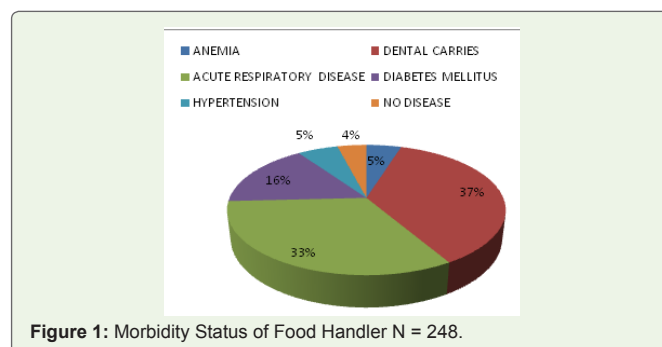
The morbidity status from selected food handlers collected in the year 2014-2015 was analysed. The health conditions included to collect study data are anemia, dental carries, acute respiratory infections, diabetes mellitus, and hypertension. Table 1 shows the morbidity status of food handlers from eight different food service establishments.

Food handlers morbidity status selected from 8 different categories of food service sectors and noticed that that 4.8 percent ($n = 12$) of the participants are anaemic, 36.6 percent ($n = 91$) has dental carries, 32.6 percent ($n = 81$) has acute respiratory infections, 16.1 percent ($n = 40$) had diabetic mellitus, and 5.6 percent ($n = 14$) of food handler participated in the study are hypertensive and 4.03 percent ($n = 10$) of the participants has no significant disease episodes. Among 248 food handlers who participated in the study only 10 were healthy remaining food handlers had some sort of health issues.

Figure 1 gives a pictorial representation of medical history of the workers of different categories of food service establishments.

Table 1: Morbidity Status of Food Handler N = 248.

No. of Samples	Frequency	Percent
Anaemia	12	4.8
Dental Carries	91	36.6
Acute Respiratory Infections	81	32.6
Diabetes Mellitus	40	16.1
Hypertension	14	5.6
No Disease	10	4.03
Total	248	100



Discussion

In the present study, 96% of food handlers were apparently unhealthy with one or more than one health problems and only 4% were healthy. Hypertension, anemia, dental carries, acute respiratory infections, diabetes mellitus were the diseases that are attributed to their unhealthy conditions. 4.8 percent ($n = 12$) of the participants are anaemic, 36.6 percent ($n = 91$) has dental carries, 32.6 percent ($n = 81$) has acute respiratory infections, 16.1 percent ($n = 40$) had diabetic mellitus, and 5.6 percent ($n = 14$) of food handler participated in the study are hypertensive. In this study majority of the food handlers had dental carries, followed by acute respiratory diseases, diabetes mellitus, hypertension and anaemia.

Conclusion

The health status of the food handlers from various food service establishments was found to be unsatisfactory. Awareness about importance of employee's health and wellness to improve their productivity needs to be created among food handlers and the management of food service establishments.

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