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A Study to Assess Knowledge Attitude and Practices about Sanitation Hygiene and Health Checkups amongst Kitchen Workers from DMIMS

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ABSTRACT

Background: Sanitation hygiene for food and beverages the practice that deals with the processes of keeping eatables free of risks that can harm or interfere with health. Institutional foodborne illness outbreaks continue to make national news, showing negligence on part of people handling food to follow sanitary methods of cooking and food distribution. Microbiological examination of hands of people involved in food preparation and distribution can help gauge the cleaning processes of the establishment. Kitchens were the subject of a cross-sectional investigation. The findings highlight the importance of all food workers receiving food hygiene training. Maintenance of cleanliness of food and food handlers is a must and should in cafeterias of any establishments. When disease-causing bacteria, viruses, or parasites contaminate food, food-borne illnesses can develop. All across the world, foodborne infections are common and often even prove lethal. The researchers came to the conclusion that the food handlers had enough food safety knowledge. This study included food handlers from a DMIMS in SAWANGI, WARDHA.

Objectives: Our study aims to assess knowledge, attitude and practices about sanitation, to check Hygiene and conduct health check-ups amongst kitchen workers and to put forth the recommendation based on study results.

Methods: A cross-sectional analysis will be conducted in kitchens. All consenting kitchen workers of Food court at DMIMS will be recruited as part of the study. Data will be collected via well-structured questionnaire.

Expected Results: The analysis of the data and appropriate statistical tests will be contemplated in the result. The findings will emphasize the necessity of food hygiene training for all food workers. Aspects of the safety behavior of food employees will be highlighted

Conclusion: The conclusion will be drawn after the completion of the proposed study.

Key words: Food safety, Food handler's, Sanitation, Hygiene

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INTRODUCTION

Except for water, medications, and other medical substances, food is also major part of all things necessary by an organism for its survival. Food apart from being a basic necessity is an integral part of our immunity but also forms the basis for multiple diseases and ailment. While healthy eating can prevent diseases, contaminated food can propagate pathogens and disturb health. Health hygiene is the practice that builds on preventive undertakings and ventures that can control health hazards spread through food and drinks. These practices can begin from early stages of cultivation and range to end products ready for consumption [1].

It's critical to keep your workplace clean in order to avoid foodborne illness. Bacteria can grow and contaminate food on dirty surfaces. A sanitary work surface does not always indicate that it is clean. Make sure the work space is clean and sanitized before you start cooking meals. Foodborne diseases, also referred to as foodborne illnesses, are disease that is caused due to consuming particular foods. These diseases have a huge number of victims and are expensive to treat. Foodborne infections are caused by eating infected foods and items. Foodborne diseases are caused by bacteria, viruses, parasites, chemical agents, and toxins that are

created when food is contaminated at any step, from manufacturing to consumption [2].

Although researchers and professionals report a huge proportion cases of food related illness annually, exact data is unknown because the vast majority of cases go unreported. Foodborne infections can be difficult to detect since they present with a wide range of complaints from tiredness, lethargy, feverishness, dizziness, abdominal discomfort, to more severe pyrexia with chills, dysentery, severe cramps, dehydration induced altered sensorium, and, in the worst-case scenario, death. While it is possible that even food cooked at home can cause disease due to lack of sanitary practice, In many of the documented cases of foodborne disease, meals cooked by vendors i.e history of having outside food was reported as source of infection [3].

If food is contaminated at any stage along the supply chain, from manufacturing to consumption, it becomes potentially hazardous to human health, depending on the temperature, humidity, and pH values of the environment in which it is stored. Food poisoning is an infection or intoxication brought on by consuming tainted food or drink. Microorganisms, parasites, chemicals, naturally formed food toxins, naturally created fish toxins, metabolic abnormalities, allergic reactions, and radioactive substances are some of the causes of food poisoning [2].

People who are healthy and have no illnesses should work in the food processing business, and they should have regular medical exams. Maintenance of cleanliness of food and food handlers is a must and should in cafeterias of any establishments and timely examination must be done for all food handlers to ensure that they themselves remain healthy. This is especially vital since food handlers can contaminate raw and cooked foods, as well as impair food hygiene, by improperly preparing, cooking, and storing food [2].

It's vital to remember hygienic measures when buying, preparing, and serving food. Food handlers, in particular, have a critical role to perform. According to surveillance data collected over years, Malpractices in restaurants, cafes, canteen and negligence in food factories or kitchens at home are key causative culprits of food – borne diseases. Faulty food handling procedures are responsible for 97 percent of food borne disease in restaurants and at home, according to a study done in the United States. Around 58 percent of cases in England and Wales were connected to food prepared and served in restaurants. Foodborne illness outbreaks can be caused by a, understaffing, inadequate knowledge of hygiene, a lack of potable water, the use of unhygienic materials, failure to maintain optimum temperature required for particular foods, shortage of appropriate equipment, storage facilities, and placement of food facilities in inappropriate territory like in close vicinity of sewage canals or trash disposal sites. The dangers were exacerbated by insufficient garbage disposal facilities. Furthermore, unclean practices of storing foods or negligence wile transporting/handling/cooking can create an ideal habitat for pathogens, that is conducive to the growth, reproduction, and spread of bacteria and other harmful agents [3].

For excellent health and social and economic prosperity, a solid sanitation system, basic hygienic practices, cleanliness of surroundings and safe wholesome drinking water are required. As a result, India's Prime Minister said in 2008 that "sanitation is more important than independence," echoing Mahatma Gandhi's 1923 statement. While these three elements are interconnected and frequently mutually beneficial, they have distinct public health characteristics. Enrichment and rectification in any of these 3 aspects can bring down disease rates and levels, elevate the impact of diseases, thereby upgrading the quality of life in underdeveloped nations. This will also serve to improve living conditions of children in impoverished nations.

The purpose of this article is to look at kitchen staff sanitation knowledge and practises and make recommendations for sanitation management plans and effective approaches to improve sanitation knowledge and practise. Many cases of foodborne disease, as well as the associated financial losses, can be traced back to kitchen worker errors, such as improperly cooked or mishandled food, filthy sanitation, and improper cleaning practices at home. Food handlers may also shed E. coli O157:H7 and non-typhoid Salmonella during the infectious period of a gastrointestinal infection [4].

In this context, an attempt is made to research personnel who deal with kitchens on a daily basis understanding of food borne diseases, personal hygiene, and measuring food safety and kitchen cleanliness practices [4].

What defines HEALTH is a topic with more than theoretical consequences; it has practical, policy, and health-care repercussions. The present WHO definition of health is insufficient to address the new problems that health-care systems face. Despite several attempts, no alternate definition has been widely accepted. From an epistemological perspective, the need for a single definition must be abandoned in favour of a plural approach, in which there can be no single optimal definition of health but many different meanings, each of which is more or less relevant depending on the circumstances [5].

Sanitation

Sanitation is a human right as well as a health advantage. As a result, technological and behavioural approaches to increasing the number of people who utilize sanitation facilities are widely employed. External support agencies (ESAs) use a combination of commercial and social marketing methods to enhance sanitation product and service supply and demand through sanitation marketing interventions (SMIs). However, there is no substantial independent analysis of whether SMIs increase or reduce happiness [6].

Hygiene
Hygiene is a set of practices used to keep one's health in good shape. "According to the World Health Organization, "hygiene refers to settings and behaviours that help to maintain health and prevent the spread of diseases" (WHO) [7].

The Robert Koch Institute's Commission for Hospital Hygiene and Prevention of Infections (CHHPI) published recommendations in 2009 on the personnel and organizational prerequisites for nosocomial infection prevention. The roles of all members of professional groups who belong to or work closely with a team of hygiene professionals at an outpatient or inpatient medical facility were highlighted [5].

Due to the failure to fully execute these recommendations and the recurrence of cleanliness deficiencies in health-care services, the legislature was forced to pass a new law on hospital highlighted [8].

Rationale
Food cooked for a large group in unhygienic conditions can be a source of infection and sickness. Food handlers play a critical role in preventing foodborne illness. Any foodborne disease that affects health caregivers will result in sickness absenteeism, as well as the possibility of pathogen transmission from caregivers to patients. We conducted a cross-sectional study on the campus of Medical college in food service establishments in order to examine food handler hygiene and the sanitary status of the establishment. The researchers looked into food handlers' sociodemographic traits, personal habits, health status, knowledge, and procedures.

Aim
The aim of our study is to asses knowledge of kitchen workers regarding food borne diseases, how to prevent them and attitude of kitchen workers towards practicing hygienic methods of food handling. We also to aim to suggest recommendations to improve overall condition based on results of the study.

Objective
To asses knowledge, attitude and practices about sanitation.

Hygiene and health check-ups amongst kitchen workers.

To put forth the recommendation based on study result.

METHODOLOGY

Research design
Present study will be a cross-sectional study.

Study setting
Present study will be conducted at Food Court of Acharya Vinoda Bhave rural hospital & JN Medical College, DMIMS (DU), Sawangi, Wardha, Maharashtra. All the kitchen workers employed by this establishment will be recruited for the study.

Study participants
The participant of the study will include the kitchen employees of Food court of DMIMS (DU), Sawangi (Meghe), Wardha, India.

Inclusion criteria
Any kitchen worker, employed by the institute is eligible a part of the study.

Exclusion criteria
Non-consenting/Unwilling kitchen employees.

Employees absent during data collection.

Sampling procedure & sample size
We are aiming for complete enumeration of the subset and thus predicted sample size according to records is 65.

Data collection, sources & measurement
One-on-one interviews will be conducted with all participants. After duly obtaining informed consent, sociodemographic information was collected first along with addiction history, history of pre-existing comorbidities or health condition history. Next, using a pre-designed questionnaire, we will conduct interview to assess knowledge of participants about food-borne diseases, healthy habits of handling food and attitude towards proper hygiene. To assess health status, we will collect blood, urine, stool and other necessary samples for basic laboratory examinations.

Statistical methods
Data collected will be filed in Ms–Excel.

We plan to analyse the data using Epi Info statistical software. Applicable descriptive statistics will be used to express results in percentages ratios rates and proportions. We plan to use regression analysis to find association between risk factors. The results of this analysis will be presented in form of graphs & tables.

DISCUSSION

Daru Lestantyo, et al. describes that Food poisoning (80-90 percent) and food-borne infections can be caused by a lack of awareness and improper handling of food. Food hygiene training, he claims, is required to improve food handler expertise and maintain the safety of food consumed [9].

Noor-Azira Abdul-Mutalib, et al. tells about how these food handlers can become a vector for harmful diseases just by simple ignorance of washing hands. In his research he talked about how the practice section was lower than the knowledge and the attitude section and the ways to mend these [10].

The study by Hui Key Lee, et.al says about how the educational level, working experience and a safe handling course had varying degrees of impact on food handlers' food safety knowledge and attitudes. In his investigation, he discovered an interesting fact: individuals who had

never gotten any formal schooling outperformed those who had only received primary education [11]. The study by Motiwala, et al. divided his results according professions, education, family status and time duration in kitchen. He also stated that Even if food appears to be in good condition and smells good, it is not necessarily safe to eat. He also recommends training and promoting positive attitude of hygiene practices [12].

Bobhate, et al. analysed the results of is study according to educational status and personal hygiene of food handlers. He suggested sanitary methods among food handlers and also recommended pre-employment and periodical examination among this population to minimize spread of disease [13].

Moghnia, et al. conducted a study among food – handlers to assess food safety knowledge and practices. his study showed that nearly 50 % had unsafe attitudes and this same section had the habit of using same hand gloves while handling raw meat and raw vegetables [14]. A study by Malhotra, et al. on food handlers in a medical institute showed that knowledge of workers increased significantly after 3 months of interventional training but the habit of not washing hands after bathroom breaks did not improve [15]. Related studies from this region were reviewed [16-20].

LIMITATIONS AND GENERALISABILITY

The study cannot be generalized to other institutions or areas.

EXPECTED RESULTS

The analysis of the data and appropriate statistical tests will be employed to get results about level of knowledge of sanitation among kitchen workers of our institute and its relation to their hygiene and practices.

IMPLICATIONS

The findings will emphasize the necessity of food hygiene training for all food workers. Aspects of the safety behavior of food employees will be highlighted.

ETHICS COMMITTEE APPROVAL

The study protocol will be submitted to the Institutional Ethics Committee of DMIMS (DU) for approval.

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