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Risk of Food Poisoning in Canned Foods

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Abstract

The current study aims to examine the danger of food poisoning in canned foods to humans, and the impact of microbes that cause food poisoning on humans. 550 questionnaires were distributed (the target population is residents of the city of Mecca), and responses were obtained from the researcher's email (from 25-55 years old). In Mecca). Data was collected and analyzed using a table, Excel 2010, pie chart, and graph.

Keywords*: risk, food poisoning, canned foods.*

Introduction

Food-borne disease or food poisoning is a series of symptoms outcoming from food poisoning polluted with bacteria, or food made by these organisms. Food poisoning also create from food infected with various kind of viruses, germs, parasites, and a toxic chemical substance, such as poisoning resulting from fungal food. It is said that Food poisoning may be explained if it happens that the appearance of the illness may show in more than one person eating the food. Laboratory studies have contained that laboratory food is the major reason of poisoning in the method of cultivating artisanal bacteria, and food poisoning resulting from bacteria is the main cause in more than 80% of cases. Gold poisoning (1)(2)(3). Foodborne disease, which is colloquially referred to as food poisoning (4), represents any disease outcoming from eating infected foods. We note here that there are two kind of food poisoning: contamination poisoning and toxin poisoning. Food infections mark the presence of bacteria or other microbes that source pollution in the body after eating. As for body toxicity, it leads to the ingestion

and digestion of toxins found in foods, containing toxins. which is protein biological toxins produced by some living organisms, containing plants and animals, such as castor seed toxin. This state of toxicity occurs even if the microbe causing the production is the toxin is no longer present or unable to cause infection. Despite the popular used term, food poisoning, most cases are reason by a different of pathogenic bacteria, viruses or parasites, all of which infected food, (5) rather than chemical or natural toxins. Canned foods or shelf steady canned foods are crowded in hermetically sealed vessels and are commercially antiseptic (6). Canning is meant to destroy harmful microbes in food, however, with inadvisable handling, cans be upbringing grounds for microbes. Canning destroy the microbial contaminated; however, results undergo microbial deterioration and could reason food borne disease an outcome of under processing, unsuitable cooling infection of the can resulting from seepage and preprocess damage. Some canned foods extradite low-heat curing and as such are prone to infection by large number of various microorganisms' kinds. dishonorable containers are a popular place due to shortcoming or bottleneck in the industry, improperly closed can or cans damaged due to bad packaging/ transmission in such a style as to allow recontamination of the can contents following the temperature process (post-processing contamination). Canned foods have been reported to be contaminated mainly by spore forming bacteria of the genera Bacillus, Clostridium and Desulfotomaculum (7). If the contaminant is a pathogen and the food is capable of supporting its growth, a health danger exists (6,8,9). B. coagulans and B. stearothermophilus have been implicated in canned tomato juice and milk rise flat acid spoilage with acid but no gas production from carbohydrate (10,11). B. cereus and B. licheniformis contaminate milk causing broken cream and soft coagulum with blown cans (11,12). Food poisoning by C. perfringens has been reported, poisoning has been linked most often with meat and gravies, however, C. perfringens spores are also found in milk and cheese and could grow to reason food poisoning (13,14). Toarmina and Diorsa (2004) reported on the putrefaction and excessive gas formation of canned meat and sea foods caused by Clostridium sporogenes (15). contamination of fermented Spanish olives "Zapateria'' and blast (rancidity and off- aroma) of chocolate candies have been related with C. bifermentans and C. sporogenes (16,17). Thermophilic spore formers may be more widespread in under processed foods than mesophiles because they are more heat reluctant, C. thermosaccharolyticum and C. thermoaceticum have been implicated in pollution of canned foods (18,19). Botulism is the most dreaded form of food poisoning and the botulinum toxin from C. botulinum is one of the most potent (13). The ICMSF (International Commission on Microbiological Specifications for Foods) (1986) do not backing nursery tests for canned foods for obvious reasons. It is however necessary for low acid canned foods that do not receive full botulinum cook; it is evenly of use to manufacturers to watch contamination direction over long period of time and to monitor pathogens like staphylococci and Salmonella typhi that will not make gas in many canned products (6).

Material and Methods:

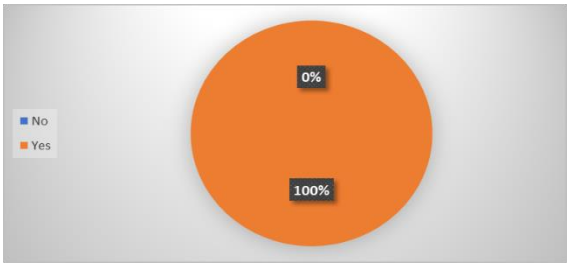
The study started in (the holy city of Mecca in Saudi Arabia), began writing the research and then recording the questionnaire in January 2022, and the study ended with data collection in June 2022. The researcher used the descriptive analytical approach that uses a quantitative or qualitative description of the social phenomenon (Risk of food poisoning in canned food). This sort of study is characterized by analysis, reason, objectivity, and reality, as it is concerned with individuals and societies, as it studies the variables and their effects on the health of the individual, society, and consumer, the spread of diseases and their relationship to demographic variables such as age, gender, nationality, and marital status. Status, occupation (20), And use the Excel 2010 Office suite histogram to arrange the results using: Frequency tables Percentages (21) Independent variable (percentage of canned food poisoning worldwide), dependent variable (percentage of food poisoning in the city of Mecca). A questionnaire is a remarkable and helpful tool for collecting a huge amount of data, however, researchers were not able to personally interview participants on the online survey, due to social distancing regulations at the time to prevent infection between participants and researchers and vice versa (not coronavirus participation completely

disappearing from society). He only answered the questionnaire electronically, because the questionnaire consisted of nine questions, all of which were closed. The online approach has also been used to generate valid samples in similar studies in Saudi Arabia and elsewhere (22)

Results and discussion:

The percentage of approval to participate in the research questionnaire was 100%, and the percentage of participants according to their age was as follows: 0% from 25-34 years old, 50% from 35-44 years old, and the same for those 45-55 years old 50%, and all their genders. They are 100% male, 100% Saudi by nationality, 50% by university level, and 50% postgraduate and doctoral. As for their job professions, they were all 100% government employees. When moving to the questionnaire questions and the participants' responses to them, they were as follows: The first question: There are ten types of microbes that cause food poisoning, and they are as follows: Clostridium perfringens, Staphylococcus aerus, Bacillus cerus, Salmonella, Shigella, Clostridium botulinum, Escherichia coli, etc.? Yes 100% and no 0%. The second question: What are the symptoms of food poisoning: nausea, abdominal pain, colic, vomiting, diarrhea, intestinal inflammation, fever, headache? Yes 100% and no 0%. Question Three: Mostly food-borne diseases are poisoned from mishandling, improper preparation and preparation, and poor storage of food? Yes 100% and no 0%. Question Four: Food-borne illness is a group of symptoms resulting from eating food contaminated with bacteria and toxins? Yes 100% and no 0%. Question five: Is food poisoning caused by bacteria the main cause of more than 80% of food poisoning cases? Yes 100% and no 0%. Question Six: Is food poisoning due to changes in the form of canned food? Yes 100% and no 0%. Question Seven: Does the expiration date on food cans have a role in food poisoning? Yes 100% and no yes 0%. Question Eight: Salmonella food poisoning is considered the most common type of food poisoning? Yes 100% and no 0%. Question 9: Symptoms of food poisoning begin about 12 to 24 hours after eating contaminated food? Yes 100% and no 0%.(Figure No.1).

Figure No.1: Opinions and attitudes of participants about their knowledge of the microbes that cause food poisoning



Conclusion:

The extent of the danger of food poisoning, especially in canned foods, to human health, through the physical structure and its devastating impact on the environment.

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