



AWARENESS AND ATTITUDES OF FOOD SAFETY KNOWLEDGE AND PRACTICES AMONG THE CONSUMERS IN THOOTHUKUDI DISTRICT

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ABSTRACT

The research paper is to identify the food safety knowledge and practices of consumers in Thoothukudi District. The present study covers the Taluks of Thoothukudi, Ottapidaram, and Srivaikundam in Thoothukudi. The data were collected from the consumers (n=150). Percentage and factor analysis are used to identify the specific result of the research study. This study found that consumers are unaware of the technique which is an effective means for preventing the spread of harmful bacteria and viruses that cause food borne illnesses. Many food poisoning cases originate in homes because of lack of basic knowledge of safe food handling practices. Consumers are unaware of the laws and their provisions. Consumers are unaware of the storage of perishable and leftover food. Government through media should advise the consumer to store the perishable food items immediately after purchase. Most of the consumers are aware of food safety. However, they do not execute safe food handling practices. Food safety awareness should be introduced in curriculum from primary school level to college level.

KEYWORDS: Food Safety Knowledge, People, Awareness & Attitude.

INTRODUCTION

Every year, millions of people worldwide die and many are hospitalized from food borne diseases and illnesses as a result of consumption of contaminated food (Knight et al., 2003)¹. World governments concentrate their efforts on improving food safety, in order to promptly and properly respond to the increasing types and incidents of food borne diseases. Food-borne infections are placed in the core of primary community health concerns, by both advanced and developing countries of the world (Eren, 2007)². While it is hard to predict the actual number of incidents of food-borne diseases, it is a known fact that many lives were lost to diarrhoea caused by food and water-borne microbiological agents, tolling around 1.8 million minors during 1998 and 2.1 million people, during 2000, in the developing world. In industrial states of the world, on the other hand, it is stated that every one individual in a group of three is affected by food-borne diseases each year and almost 30% of the population in advanced countries are infected with food-borne diseases (Bas, 2004)³. Many people are poisoned every day by consuming food produced in unhygienic environments, without sufficient knowledge or training in hygiene, using unclean water or due to inefficient storage conditions, lack of cleaning or mixing of chemicals with foodstuffs (Sanlier, 2009)⁴. Food can be mishandled at many places during food preparation, handling and storage. Several studies indicate that consumers have inadequate knowledge about procedures needed to prevent food borne illnesses at home (Mederios et al., 2001)⁵. The prevention of food borne illnesses requires educating food consumers on safe food handling practices (Jevsnik et al., 2008)⁶. However, prior to education, it is



important to assess food safety issues relevant to consumers. It has been demonstrated that the level of education affects the level of knowledge or awareness in any casual consumer, in combination with age, sex and level of income (Angelillo et al., 2000)⁷.

PROBLEM STATEMENT AND PURPOSE OF THE STUDY

The global incidence of food borne illnesses is difficult to estimate, but it has been reported that in 2000 alone 2.1 million people died from diarrhoeal diseases (WHO 2006)⁸. A great proportion of these cases can be attributed to contamination of food and drinking water. According to World Health Organization (WHO), about 70% of 2 million deaths per year from diarrhoea in developing countries are related to contaminated food. Consumers, infants and senior citizens are in higher risk of food borne illness because they possess a weakened immune system. Nearly 40% of food borne illness is the result of consumption of food prepared at home (WHO 2006)⁹.

In a survey, the majority of cases of food-borne illness in homes were never reported to the relevant authorities (Surujjal & Badrie, 2003)¹⁰. In over 90% of households in India, it is the consumer who is involved in the preparation of food. In nature, every consumer takes full care of food safety practices in preparing or obtaining food for their family. However, as per the UNICEF report¹¹, in 2009 infant mortality rate is quite high in India (50.78%). In spite of consumers' whole hearted preparation of food in the most possible hygienic way to protect their family health, food borne diseases exist in both developing and developed countries. As per the WHO report and previous studies, consumers are suffered from food borne diseases due to food prepared at home. All consumers and food handlers take utmost care in food safety, hygienic and hand washing practices to avoid food borne diseases. But still food borne problems arise and exist in India. The question now is "Why food borne diseases are high in India, eventhough the food is prepared by the food handlers (mothers) with proper care and stored in traditional, hygienic and scientific methods at home?" Hence, the researcher has made an attempt to find out the existing awareness and attitudes of consumers in food handling practices to identify the causes and effects of food borne diseases in Tamil Nadu.

OBJECTIVES OF THE STUDY

1. To analyse the awareness and attitudes of consumers about food safety and its impact on food borne diseases.
2. To analyse food safety knowledge, practical experience and its association with the complaint handling practices of consumers.

SIGNIFICANCE OF THE STUDY

Food borne diseases can be controlled when consumers adopt the methods of food safety suggested in this study.

1. This study identifies lacunae in food safety knowledge, practices and practical execution and its results can be used to reduce food borne diseases.
2. Governments can utilise this study to understand the reasons for food borne diseases.

SCOPE OF THE STUDY

The present study covers Three Taluks of Thoothukudi district. i.e. the districts of Thoothukudi, Ottapidaram, and Srivaikundam in Thoothukudi. It deals with the Awareness and Attitudes of Food Safety Knowledge and Practices of Consumers – A study with special reference to Thoothukudi District.

METHODOLOGY

Since the study has its own predetermined objectives and methodology, it is descriptive in nature. Apart from this, an attempt has been made to explain the awareness and attitudes of food safety knowledge and practices among the consumers. Therefore this study is analytical in nature.

SAMPLING PROCEDURE OF THE STUDY

Out of Eight Taluks of Thoothukudi District, three Taluks of Thoothukudi, Ottapidaram and Srivaikundam were selected for this study by convenience sampling method. In total, 50 respondents per taluks (approximately) were selected. The total sample size came to 150 respondents. A well structured interview schedule was used to collect the relevant data.

SOURCE OF DATA

The present study is based on the primary data collected from consumers in urban and rural areas of Thoothukudi District. Secondary data consists of different literatures of books, published articles and websites.

AWARENESS AND ATTITUDES OF CONSUMERS IN FOOD SAFETY AND ITS IMPACT ON FOOD BORNE DISEASES

Food borne diseases are the result of consumption of contaminated food, pathogenic bacteria, viruses, or parasites that contaminate food, as well as chemical or natural toxins such as mushrooms. Food borne diseases usually arise from improper handling, preparation, or food storage (Weinstein 1991)¹. These diseases have always been a major threat to vulnerable groups, including the young. So, there is a need for broad based food safety education among consumers, especially adolescents, who are the food handlers of the future (Haapala and Probate 2004)². Majority of mothers in rural India depend on Anganwadi Centres as sources of information regarding various health issues. In this context, the idea that these centres could be focal points for initiating awareness programmes on food safety is understandable. A study carried out in a western Indian state reported that the Anganwadi Workers proved to be effective in imparting food safety education to women (Sheth and Obrach, 2004)³. In India, religious practices play a dominant role in food handling practices. In the context of modern food production techniques and methods in a globalized world, the food handling methods adopted by women during religious and social ritual practices are not adequate to ensure the safety of food. The most common factors contributing to food borne diseases are unsafe keeping of food (time/temperature), contaminated equipment, food from unsafe sources, poor personal hygiene and inadequate cooking. The role of food handlers, usually mothers, in ensuring food safety at the household level is well accepted and hence an understanding of the status of their food handling knowledge and practices is needed.

AWARENESS OF FOOD BORNE DISEASES

Food safety knowledge, attitudes and behaviour concerning attitudes towards food borne diseases and food safety issues have been analysed among food handlers and it was found out that a great majority of the food handlers lack knowledge in proper food handling practices. Only a small number of people use gloves for touching unwrapped raw food. It has been concluded that food handlers need proper educational program for improving food safety knowledge and control food borne diseases (Angelillo et al., 2000)⁴. Percentage test has been used here to analyse the awareness of food borne diseases.

Table 1 Awareness of food borne diseases

	Respondents	Percentage
Awareness	109	72.67
Unawareness	41	27.33
Total	150	100.0

Source: Primary data

Table 1 shows that most of the respondents (72.67%) have awareness in food borne diseases. Remaining 27.33% of the respondents are unaware of food borne diseases. This analysis shows that most of the respondents have high awareness of food borne diseases and only a few respondents are unaware of it.

DISEASE-WISE ANALYSIS OF CONSUMERS' PRACTICES

Consumer Practices Scale has developed on the basis of the diseases of components below table shows the level of practices of the consumers under the convenience factors in food safety. Convenience in the food safety is a vital factor to influence the level of practices of the consumers. The relevant factors for the study are;

Table 2

	Diseases	Respondents
CON 1	Vomiting	52
CON 2	Fever	12
CON 3	Diarrhoea	78
CON 4	Unsettled stomach	8
	Total	150

Table 2 shows the practices of unsafe drinking water and its impact on food borne diseases. This analysis concludes that the using of unsafe drinking water caused food borne diseases to the respondents. It is clear from this analysis that diarrhoea has the highest sample is 78 stating that most of the respondents are affected by diarrhea. Diarrhoea is closely followed by vomiting with the sample 52, fever with a sample of 12 and finally unsettled stomach with sample of 8.

SAFE KEEPING OF FOOD

Majority of the people have lack of food safety knowledge and safe practices at home. It concluded that food storage practices among the majority of elderly mothers do not adhere to the recommended safety standards to minimize the risk of food poisoning. In Table 3 percentage analysis has been used to find out the safe keeping of food.

Table 3 Safe keeping of food in different situations

	Respondents	Percentage
Storage in Shop	82	54.66
Before Preparation	39	26.00
After Preparation	7	4.67
Cooking	1	0.67
Serving	21	14.00
Total	150	100.0

Table 3 analyses the opinion about safe food at different storing places. Out of 150 respondents, majority of the respondents (54.66%) feel that the food kept in the shop is safe, while 26% of the respondents feel that the food is safe before preparation of the food items. 14% of the respondents stated that the food is safe when it is served to family members, while 4.67% of the respondents feel that the food is safe after preparation of the food items. Only 0.67% of the respondents feel that the food is safe while cooking. It is concluded that most of the respondents state that the food is safe when it is kept in the shop.

FINDINGS

1. Most of the respondents have awareness about food borne diseases. Though the respondents have awareness they can not protect themselves from food borne diseases due to lack of kitchen infrastructure facilities, improper hygienic practices and poverty of the consumers.
2. Food borne diseases have affected all respondents. The respondents have suffered from food borne diseases.
3. The quality marks of the product such as ISI, AGMARK and FPO play an important role in ensuring the safety of the food. Quality and quantity are assured through these quality marks of products. The respondents should check the quality marks of the products before purchasing. In this study, the different levels of age, education, occupation and income of the respondents are associated with the checking of quality marks of the products. The high levels of age, education, occupation and income of the respondents lead to high awareness in checking the quality marks of the products.

CONCLUSION

The study concludes that the sterilization of food and keeping the food in the refrigerator at correct temperature are steps to keep the food safe. Majority of the respondents do not sterilize the food and do not possess refrigerator for the safe keeping of the food. The respondents identify the unsafe food by its smell, taste and appearance of food. The respondents use leftover food without proper preservation in the correct temperature. Proper sterilization destroys all harmful diseases. The possessors of refrigerator do not maintain the correct temperature. Most of the food borne illness outbreaks included inadequate holding time and temperature, improper food storage, inadequate sterilization and using of leftover food. Inappropriate temperature, inadequate refrigeration, improper cooking and reheating are the major causes for food borne diseases. The result of this study had revealed that there were good chances of success if The Ministry of Consumers Affairs should create awareness about safe and unsafe food through workshop, seminar, public and street meeting to create awareness about the safe keeping and hygienic practices of the consumers.

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