



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2023; 12(6): 2486-2488
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www.thepharmajournal.com

Received: 01-04-2023

Accepted: 10-05-2023

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A cross-sectional study on food safety knowledge of urban consumers

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Abstract

A growing concern for the public is food safety. Foodborne illness can be prevented by adhering to food safety regulations from production to consumption. The aim of the current study is to assess respondents' knowledge of food safety. Through exploratory sampling, a total of 100 samples, comprising randomly of males and females between the ages of 25 and 50, were gathered. Through the use of a pre-structured questionnaire, data was gathered. The average score for food safety knowledge was 27.44 ± 4.161 . Awareness of the fundamentals of hygiene and storage temperatures may cause an important change in consumers' behaviors, reducing the incidence of foodborne illness.

Keywords: cross-sectional, food safety, urban, consumers

Introduction

Food safety has become a significant issue for public health (WHO, 2004) [3]. In order to prevent bacteria or poisonous substances from producing food-borne illnesses, it refers to the circumstances and practices that maintain food quality. Foodborne illness can be prevented by following food safety regulations from production to consumption. Therefore, the most important link in the chain for preventing contamination during food handling, preparation and storage should be at home (Medeiros *et al.* 2001) [2].

Ingesting harmful bacteria or the chemicals they create in sufficient amounts to cause disease or other health problems is often what causes a foodborne illness. International research have shown that home practices, particularly in the kitchen, are the main cause of the majority of food-borne diseases. Contaminated raw food supplies, a lack of public understanding of food safety, improper food handling procedures and in-home food preparation are all factors which can lead to outbreaks of food-borne illnesses. Additionally, intentional consumption of raw or undercooked food is referred to as "risky" eating behaviour and is thought to play a substantial impact in the rise of foodborne infections.

The proposed research was designed to expand consumers' understanding of food safety in order to avoid problems brought on by lack of knowledge.

Methodology

Through exploratory sampling, 100 samples from the city of Udaipur were chosen for the current investigation, with a random distribution of males and females. Individuals in the 25–50 age range who handled kitchen tasks and food-related practices were included. To collect data from the respondents, a pre-structured questionnaire was created. The questionnaire included demographic information, questions regarding knowledge of food safety, awareness of foodborne illness, and cross-contamination. The data was collected from the respondents using interview schedule.

Statistical analysis

The gathered information was then transferred to an excel spreadsheet for additional analysis, where it was further examined in accordance with the study's aims. To calculate the result, percentage, mean and standard deviation were used.

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Result and Discussion

Demographic Profile: Table 1 shows how respondents were grouped based on socio-demographic factors. The majority of respondents (39%) were between the ages of 36 and 45, followed by 38% of respondents between the ages of 25 and 35, while only 23% were between the ages of 46 and 50. Respondents were divided into two groups based on their gender, with 98% of them being women and 2% being men. Fifty percent of respondents came from nuclear family, while the other 50% were from joint families. The majority of respondents (70%) identified as homemakers; 6% had their own businesses; 24% were employed; 1% had completed elementary school; 2% were classified as middle schoolers; 6% had finished secondary education; 12% had finished senior secondary; 28% were graduates; and 51% were postgraduates. The majority, or 52% of respondents, were from a lower income group, according to the findings. Twenty-six percent of the population belong to middle income group I, 17% to middle income group II and 5% to higher income group.

Table 1: Classification of respondents based on demographic profile

S. No.	Variables	Percentage (%)
1	Age	
	25-35 years	38
	36-45 years	39
	46-50 years	23
2	Gender	
	Male	98
	Female	2
3	Type of family	
	Nuclear	50
	Joint	50
4	Occupation	
	Homemakers	70
	Business	6
	Employed	24
5	Education level	
	Primary	1
	Middle	2
	Secondary	6
	Senior Secondary	12
	Graduate	28
	Post graduate	51
6	Annual income	
	Lower Income Group	52
	Middle Income Group I	26
	Middle Income Group II	17
	Higher Income Group	5

Knowledge of respondents regarding food safety

The only method to guarantee food safety is for the person handling the food to be aware of all the procedures required to provide food free of any contamination. The study's findings showed that 66% of participants understood what the word "food safety" meant, 98% agreed that the spread of foodborne illness can occur through contact with hands, 97% agreed that hair should be covered when cooking and 63% agreed that leftover food should be stored in the refrigerator.

The majority of respondents (87%) knew that the presence of bacteria, viruses, parasites, foreign particles, and adulterants indicates that food is unfit for consumption. Cross-contamination is prevented, according to participants, by washing the knife and cutting board (99%) and keeping raw

and cooked items apart (100%).

All respondents (100%) agreed that washing hands before using the kitchen is essential and they also agreed that cleaning vegetables and fruits before cooking is important. According to a study by Akabanda *et al.* (2017) ^[1], 98.7% of respondents felt that washing hands and properly cleaning equipment and utensils are important health precautions.

The majority of respondents agreed that waste from the kitchen should be disposed of in a dustbin. According to the findings of a related study by Yoda *et al.* (2014) ^[14], 61% of the households either had private garbage collectors or disposed of their kitchen waste in dustbins.

Sixty seven percent of participants agreed that poor storage affects the physical and chemical qualities of food and that those with compromised immune systems, elderly people, small children, pregnant women and infants are more prone to suffer foodborne illnesses.

Also, 90% of respondents agreed that perishable items shouldn't be kept at room temperature for more than two hours.

As shown in table 2 and figure 1, the overall mean SD score was 27.44 ± 4.164, with 76% of respondents having average knowledge scores and the remaining 24% having good knowledge scores.

Table 2: Overall score of knowledge about food safety

S. No.	Category	N=100
1	0-15 (Poor)	0
2	16-30 (Average)	76
3	31-45 (Good)	24
	Mean ± SD	27.44 ± 4.164

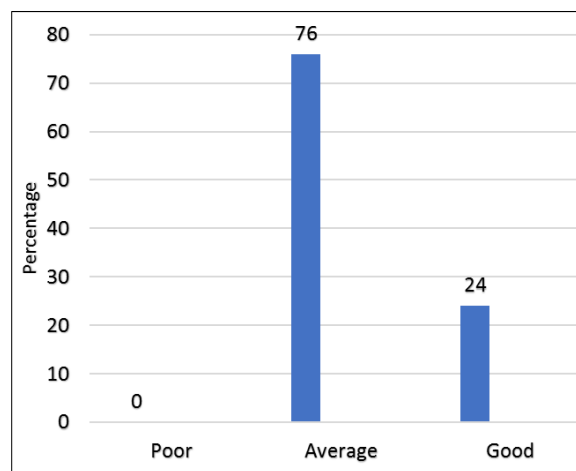


Fig 1: Overall categorization of participants based on knowledge scores

Conclusion

The results showed that 76% of respondents had average knowledge, while the remaining 24% had high knowledge scores. Raising awareness of the importance of maintaining hygienic practices and educating people on the best temperatures to keep different types of food is crucial because food safety is an increasing concern. Better practices will be implemented as a result of raising awareness, which will reduce the incidence of food-borne illnesses.

Conflict of interest

None declared.

References

1. Akabanda F, Hlortsi EH, Owusu-Kwarteng J. Food safety knowledge, attitudes and practices of institutional food-handlers in Ghana. *BMC Public Health*. 2017, 17(40).
2. Mederios L, Hillers V, Kendall P, Mason A. Evaluation of food safety education for consumers. *Journal of Nutrition Education and Behaviour*. 2001;33:27-34.
3. World Health Organization. 2004. Food Safety. Retrieved from <https://apps.who.int/mediacentre/news/releases/2004/pr34/en/index.html> on 20/4/23.
4. Yoda RM, Chirawurah D, Adongo PB. Domestic waste disposal practice and perceptions of private sector waste management in urban Accra. *BMC Public Health*. 2014;14:697.
5. Yella R, Kumar N, Vemula S, Balakrishna N, Gavaravarapu S. Food Safety in Domestic Refrigerators- A Mixed Methods study to identify key messages for promoting Safe Storage Practices among Households. *The Indian Journal of Nutrition and Dietetics*. 2015;53(1):1-14.