INNOVATIONS

Assess the knowledge regarding food adulteration among house wifes

Mrs. U. Palaniyammal M.Sc (N)
Assistant Professor
Research Scholar

Dr. Mrs. S.Malathi Ph.D (N)
Professor
Head of the Department
Department of Community Health Nursing
Vinayaka Mission's Annapoorana College of Nursing, Salem
(Vinayaka Mission's Research Foundation-Deemed to be University)
pulsegreena@gmail.com & saravanamani29@gmail.com

Abstract

A descriptive research study was conducted to assess the knowledge regarding food adulteration among housewives. Data were collected from 30 samples and the data obtained was analyzed by using descriptive and inferential statistics. Highest 77% of them were in the age group of 31 – 40 years and lowest 3% of them were in the age group of 50 - 60 years. Higher 57% of them were belongs to non-formal education and lower 3% were belongs to secondary education. Highest 90% joint family was Hindu and lower 10% of them were Christian. Highest 100% were lived in urban areas. area wise distribution of mean, standard deviation and mean percentage of knowledge scores shows that the highest mean score(2.3±12.1) which is 38.3% of total score for the area introduction and the lowest mean score(0.4±2.48)which is 20% of total score for the area of testing on food adulteration .the mean score for the area (0.9±4.7) which is 22.5% of total score for the health impact on food adulteration.Overall percentage was 4.6 ± 24.5 which is 30.66 shows that housewives had average knowledge on food adulteration.

Key Words:1. Food Adulteration 2. Housewife's 3.Knowledge

Introduction

Back ground of the study

Food is essential to the sustenance of life. Food may be defined as anything eaten or drunk, which meets the needs for energy, body building, regulation and protection of the body. Quality of food is an extremely important aspect of human life as it is directly related to health issue of a person. All consumers want to get the maximum quantity of a commodity for as low price as possible. This attitude of the consumers in conjunction with the intension of the traders as well as the manufacturer to increase the profit margin as high as possible generates a vicious circle. So the quantity of the commodity gets reduced through 'Adulteration'. Adulteration of food cheats the consumer and can pose serious risk to health in some cases. According to FSSAI (2006) adulteration is defined as the addition or subtraction of any substance to or from food, so that the natural composition and quality of food substance is affected. FSSAI termed adulteration as a deep rooted social evil.[1]

Adulteration in food is often present in its most crude form as prohibited substances are either added partially or wholly substituted.Contamination or adulteration in food is added for various reasons which includes financial gain, carelessness and lack in proper hygienic condition of processing, storing, transportation and selling. Therefore, the consumer is either fooled or usually become victim of diseases.[2]

According to annual report of FSSAI, the percentage of adulterated samples has reached 23.3% (2016-17) from 12.8% (2011-12). In India, generally it is the responsibility of the female homemakers to buy and prepare the food for family. Thus in country like India, the awareness of female homemakers regarding food adulteration is very important. They can play a very important role in eliminating the problem of adulteration as generally female homemakers used to buy the food stuff for home.[3]

In Chennai, a commercial shop was inspected for the standard products and the result shows that the products sold were adulterated and it was sold in the name of branded products. About 70% of adulteration was seen in oils and ghee and 10% in masala products.[4]

A study was carried out on the microbiological quality of the spice mix used in the production of Kilishi. Kilishi is a sun dried spiced and grilled meat snack that can be kept for significantly longer duration without getting spoiled because of its dry nature. Application of spice is one among the foremost vital stages throughout the production of kilishi since it has a critical control point (Shamsuddeen and Ameh, 2008). According to International Standard Organization, spices could be defined as the natural vegetable product or mixtures without any extraneous matter that is used for flavoring, seasoning and imparting aroma to foods.[5]

Spices like other food substances, may carry some bacteria, yeast, mould spores and even some insects. The predominant flora is usually composed of aerobic spores and non spore forming bacteria, indicator organisms and a few pathogens may also be found (ICMSF, 1986). Coliforms from mixed spices were isolated and characterised to be E. coli, Klebsiella spp, Pectobacteriumspp and Enterobacter.[6]

Another study was done in which 15 packed and 27 unpacked spice samples of three kinds- red pepper, turmeric and coriander were collected from different markets and bazaars in Bangladesh. Standard microbiological analysis was carried out for the detection and enumeration of microorganisms using standard media. Results were compared with International Microbiological Standard which showed that few microbiological parameters of unpacked sample were higher than the recommended limits.[7]

Methodology

Statement of the problem

A study to assess the knowledge regarding food adulteration among house wife's in a selected rural area

Objectives

To assess the knowledge regarding food adulteration among house wife's in a selected rural area.

Research Approach and Research Design:A descriptive study design with cross sectional survey approach was used for the study

Setting of the study: The study was conducted in Krishnan pudur, ammapet, Salem.

Population: The population was house wife between 31-40 years Krishnan pudur, ammapet, Salem.

Sampling Technique: Purpose sampling technique was used for the present study.

Sample size: Sample size consists of 50 house wife between 31 - 40 years, Krishnan pudur,ammapet, Salem.

Criteria for selection of sample

Participants who are

- Willing to participate in the study.
- Available during data collection.
- Understand and Read Tamil
-

Developmental Tool

The tool consistent of items regarding the demographic data and knowledge of house wife regarding the food adulteration by multiple choice questionnaires.

The Steps for Preparation tool were

Review of literature

Books, journals and reports, articles, published and unpublished research studies in nursing were referred to develop the tool.

Preparation of the blue print

The tool was prepared based on the blue print of items pertaining to assess the knowledge of house wife between 31 - 40 years regarding food adulteration among Krishnan pudur, ammapet were prepared.

Preparation of the Tool

The tool was prepared based on the blue print of items pertaining to assess the knowledge of house wife between 31 - 40 years regarding food adulteration among Krishnan pudur, ammapet were prepared.

Description of Tool

Tools consists of two sections

Section - A

Deal with demographic data of house wife between 13 - 15 years. It consist of 5 items which seek information about demographic characteristics, such as age, sex, educational status, monthly income of the family, religion, residential area and previous knowledge.

Section - B

It consists of 15 questions, each questions have four options. In that one option is the correct answer. Questions are arranged as following score headings.

Table No. 1: Knowledge Scoring

S.No	Items	Number of items
1.	Introduction	06
2.	Health impaction	04
3.	Testing food adulteration	02
4.	Punishment of penalties	03
	Total	15

Consultation with guide

The tool Item was give to the guide. Their opinion and suggestion were considered to modify the tool.

Preparation of the final draft

The final draft of the tool was prepared after consulting with the guide.

Method of Data Collection

Ethical Consideration

- Written permission was obtained from the VAO (village administrator officer, Salem. After the only consent will obtain from each sample prior to data collecting process.
- After explaining the purpose of the data collection procedure, prior to interview self-introduction and purpose of interview was clearly explained to each housewife to obtain maximum co - operation , and consent from them.

Data Collection Procedure

- Participants were made to feel comfortable and relaxed.
- Introductions was given related to the topic.
- Goods reports were maintained.
- Purpose of the study was explained to participants.
- Items regarding the demographic data was asked as per the interview.

Planned data analysis

The collected data was analyzed by using both descriptive statistics. Such as percentage, mean and standard deviation and presented in the form of tables and figures.

Result

Section: I: Description of demographic characteristics of participation.

- Highest 77% of them were in the age group of 31 – 40 years and lowest 3% of them were in the age group of 50 - 60 years.
- Higher 57% of them were belongs to non formal education and lower 3% were belongs to secondary education.
- Highest 90% joint family were hindu and lower 10% of them were christian.
- Highest 100% were lived in urban areas.
- The overall distribution of Mean, SD, Mean percentage of the knowledge score 4.6 ± 24.6 which is 30.6% was showed that the students had average knowledge on food adulteration among housewives.

Section: II

Table no. 2: Assessment of level of knowledge of the housewives regarding the food adulteration

S.No	Level of knowledge	Number	Percentage (%)
1.	Very poor (1 – 3)	3	6%
2.	Poor (4 – 6)	10	20%
3.	Average (7 – 10)	19	38%
4.	Good (11 – 12)	14	28%
5.	Excellent(13 – 15)	4	8%
Total		**50**	**100%**

Percentage wise distribution of house wife's according to their overall level of knowledge shows that highest percentage (38%) of house wife's had average knowledge. Lowest percentage

(6%) of house wife's had very poor knowledge and (28%) of house wife'shad good knowledge. 20% of house wife's had poor knowledge and (8%) of house wife's had excellent knowledge (Fig. No. 4.2.1)

Table No. 3: Over all area wise participants regarding food adulteration mean and standard deviation of food adulteration.

S.No.	Area	Maximum Score	Mean	Standard deviation	Mean%
1.	Introduction	6	2.3	12.1	38.3
2.	Health impact of food adulteration	4	0.9	4.7	22.5
3.	Testing on food adulteration	2	0.4	2.48	20
4.	Punishment and penalties	3	1	5.29	33.3
Total		15	4.6	24.5	30.6%

The overall and area wise mean, standard deviation arid mean percentage of food adulteration shows that out of 15 maximum obtainable scores the overall mean score was (4.6±24.5) which reveals the average knowledge on food adulteration

Further area wise distribution of mean, standard deviation and mean percentage of knowledge scores shows that the highest mean score(2.3±12.1) which is 38.3% of total score for the area introduction and the lowest mean score(0.4±2.48)which is 20% of total score for the area of testing on food adulteration .the mean score for the area (0.9±4.7) which is 22.5% of total score for the health impact on food adulteration.

Discussion

- Highest 77% of them were in the age group of 31 – 40 years and lowest 3% of them were in the age group of 50 - 60 years.
- Higher 57% of them were belongs to non formal education and lower 3% were belongs to secondary education.
- Highest 90% joint family were hindu and lower 10% of them were christian.
- Highest 100% were lived in urban areas.
- The overall distribution of Mean, SD, Mean percentage of the knowledge score 4.6 ± 24.6 which is 30.6% was showed that the students had average knowledge on food adulteration among housewives

Conclusion

This study was conducted to assess the knowledge about food adulteration among 50 housewives in selected areas, Salem, where the findings revealed that 30.66% of them had average knowledge on food adulteration.

The researcher understands that they have average knowledge on food adulteration, which may be acquired from social media, parents and their friends.

Conflict of interest: nil
Source of funding: nil

Bibliography

1. *Shamusuddeen, U. and Ameh, J.B, "Survey on the possible critical control points in kilishi (a traditional dried and grilled meat snack) produced in kano", International Journal of Bioscience, 3(2): 34-38,2008.*
2. *Acharya, M.R. and Shah, R.K, "Microbiological and chemical attributes of mango pulp samples", Journal of Food Science Technology. 36(4): pp 339-341,2009.Abhirami, S. and Radha "Detection of food adulteration in selected food items procured by homemaker", International Journal of Recent Scientific Research. 6 (8): pp 5938-5843;2015.*
3. *Ankleshwaria, N. and Shah, S.R.,"A study on the awareness pertaining to the use of safe edible food colours amongst Indian Housewives", Applied Nutrition. 24 (2): 21-27, 2019.*
4. *International Standards Organisation, (ISO)," Spices and condiments. Women culture Finchizes Draft Proposal", Tc-34/Sc-7, 150 Budapest,2012.*
5. *Patel, J.D., Krishnaswamy, M.A. and Nair, K.K.S,"Biochemical characteristics of some coliforms isolated from spices",Jounal of Food Science Technology, India 13; 37-40, 2016.*
6. *Praveen, S., Das, S., Begum, A., Sultana, N., Hoque, M.M. and Ahmad, I."Microbiological quality assessment of three selected spices in Bangladesh",2004.*