



FOOD SAFETY PRACTICES AND KNOWLEDGE AMONG HOMEMAKERS

Dr. B. Premagowri

Assistant Professor, Clinical Nutrition & Dietetics, PSG College Of Arts & Science, Coimbatore, Tamilnadu.

ABSTRACT

Food borne diseases still continue to be a major public health concern all over the world. Home makers have an important role in preventing the occurrence of foodborne illness. This study was aimed to evaluate the food safety practices and knowledge among home makers. Questionnaire was framed to collect data on background information, food safety practices and knowledge. The study was conducted in and around Salem city involving 200 female home makers. It was found that 58.2% of the respondents reported that they drained their vessels after washing, 71.5% of respondents used exhaust hood and refrigerator was cleaned weekly once by 44.5%. Nearly 65.5% used garbage bin for kitchen waste disposal. Regarding food safety knowledge 67% of the respondents did not know that they should not cook when they have cold, cough and skin rashes but only 21% of them did not know that kitchen soiled clothes spread microorganism. Majority of the respondents (70%) did not know that wearing apron is good. The lower knowledge on food safety indicates that home makers need education and training on food safety practices.

KEYWORDS : Homemakers, Food Safety Knowledge and Practices**INTRODUCTION**

Food is essential to life; hence food safety is a basic human right. Billions of people in the world are at risk of unsafe food. Many millions become sick while hundreds of thousand die yearly. The food chain starts from farm to fork/plate while challenges include microbial, chemical, personal and environmental hygiene. Foodborne illness is one of the major threats to global health security without proper solution until today. It is very influential to public health and becomes one of the economic burdens worldwide where many cases are associated with preparation of food especially by housewives at home. Housewives have an important role in preventing the occurrence of foodborne illness. Housewives need to concentrate carefully on food safety for the preparation of meals as this could help them overcome the problem (Subramanian and Jaafar, 2017)

Several international studies have indicated that a significant proportion of foodborne disease arise from unsafe food handling practices in the home mainly by housewives. A cross-sectional study by Takashi et al. (2009) investigated the potential factors of food-hygiene practices of mothers on the prevalence of diarrhoea among their children. Mothers who had children aged 6 months–5 years were recruited in a hamlet in Viet Nam. The food-hygiene practices included hand-washing, method of washing utensils, separation of utensils for raw and cooked food, and the location where foods were prepared for cooking. The risk of diarrhoea was significantly higher among children whose mothers prepared food for cooking somewhere other than the table compared to children whose mothers prepared food on the table (adjusted odds ratio=2.85, 95% confidence interval 1.11-7.28). The results indicate that food-hygiene practices of mothers, such as avoiding preparing food for cooking on the ground, has a potential impact in preventing diarrhoea among children in Vietnam.

Daniels et al. (2001) found that lack of education and awareness about food safety accounted for 80% of unsafe food handling practices. Knowledge is recognized as a prerequisite to safe food handling. It was noted that 74% of food handlers at home performed at least one unsafe food handling practice. Many researchers concluded that safe food is the most important subject of the day and strictly related with good hygiene practices and the knowledge of the home makers who carry the cooking process. Hence this study was aimed to evaluate the food safety practices and knowledge among home makers.

METHODOLOGY

In order to determine the food safety practices and knowledge of home makers, a self-administrable, questionnaire was used. The questionnaire was prepared based on the previous study conducted by Lum et al. (2013) and the questions were modified with the help of literature review on food safety and food handling practices. The questionnaire consisted of 27 statements in three groups. The groups are about; background information (5 questions), food safety practices (13 statements) and knowledge (9 statements). The questionnaire was formed using the Google form. Google forms are widely used to create surveys easily and quickly and allow to include different types of questions such as short answers, paragraphs, multiple selection, verification boxes, pull-down, linear scale, grid of several options, among others. The study was conducted in and around Salem city involving 200 female home makers. The link regarding the Google form was posted through online using E-mail ID and Whatsapp mobile number to the home makers. The home makers were asked to complete self-administrable questionnaire in order to collect research data. Incomplete questionnaires were excluded for the study. The data was collected and evaluated and were analyzed by use of descriptive statistics.

RESULTS**Table-1** Background information of the selected home makers

Background information	Criteria	Number of subjects (n=200)	
		No	%
Age	20- 25	93	46.5
	25-30	23	11.5
	30-35	16	8
	35 -40	68	34
	Total	200	100
No. of children	No children	27	13.5
	1	84	42
	2	69	34.5
	3	17	8.5
	More than 3	3	1.5
	Total	200	100
Education	SSLC	27	13.5
	Higher education	20	10
	Under graduate	80	40
	Post graduate	66	33
	More than Post graduate	7	3.5
	Total	200	100

Frequency of meals consumption outside home	Daily	9	4.5
	Weekly once or twice	89	44.5
	Monthly twice	87	43.5
	Occasionally	15	7.5
	Total	200	100

Majority of the respondents (46.5%) belongs to 20 – 25 years of age and 34.5% of the respondents had two children. Regarding the qualification of the participants it was found that around 40% of the participants were under graduates, 33% postgraduates and 3.5% more than postgraduation. Among the participants 4.5% of them dine outside home daily and 7.5 % prefer outside food occasionally.

Table-2 Food safety practices among selected home makers

Food safety practices	Criteria	Response of the participants (n=200)	
		No.	%
Do you cook when you get cold, cough and skin rashes	Yes	163	81.5
	No	37	18.5
	Total	200	100
Do you wear apron while cooking	Yes	37	18.5
	No	163	81.5
	Total	200	100
How frequently do you wash the kitchen soiled clothes	Daily once	156	78
	One week once	30	15
	Throw off	14	7
	Total	200	100
Where do you keep the vessels after washing	Free space	35	17.5
	Storage space	32	16
	Cupboard	17	8.5
	Total	200	100
Do you use exhaust hoods or chimneys in the kitchen	Yes	143	71.5
	No	57	28.5
	Total	200	100
How often do you clean your refrigerator	Daily	8	4
	Weekly once	89	44.5
	Weekly twice	19	9.5
	Monthly once	84	42
	Total	200	100
How many days do you store perishables in the refrigerator	One day	25	12.5
	Two days	112	56
	7 days	58	29
	10 days	5	2.5
	Total	200	100
Do you store perishables and non perishables in the same place	Yes	46	23
	No	154	77
	Total	200	100
When you prefer to wash fruits and vegetables	After cutting& peeling	39	19.5
	Before cooking	84	42
	After purchase	77	38.5
	No washing	0	0
	Total	200	100
Which washing method are you following to clean fresh foods (veg/non veg)	Plain water	99	49.5
	Water with salt	37	18.5
	Water with turmeric	41	20.5
	Water with chemical solutions	23	11.5
	Total	200	100
How do you serve your foods	By using hand	18	9
	By using plastic ladle	6	3
	By using metal ladle	176	88
	Total	200	100

Where do you dispose your kitchen waste	Garbage bin	131	65.5
	In street	6	3
	Near the house	10	5
	In home garden	53	26.5
	Total	200	100
Do you separate degradable and non-degradable waste while disposing	Yes	144	72
	No	56	28
	Total	200	100

Table-2 shows that 81.5% prepared their meals while on cold, cough and rashes and 78% respondents cleaned kitchen soiled clothes daily once and 15% cleaned weekly once. Nearly 81.5% were not used apron and 58.2% of the respondents reported that they drained their vessels after washing. Exhaust hoods was used by 71.5% of respondents in kitchen. Refrigerator was cleaned weekly once by 44.5% and monthly once by 42% of the respondents. Around 56% of the subject preferred to store their perishables in the refrigerator only for two days. Perishables and non perishables were stored in separate place by 77% and in same place by 23% of the respondents. It was found that only 18.5% of them preferred to clean in water with salt. Around 42% of the subject preferred to wash the vegetables before cooking and 19.5 % washed after peeling and cutting. About 87.5% used metal ladle and 9% used their hands to serve. For kitchen waste disposal, 65.5% used garbage bin, 26.5% used home garden to dispose and 5% disposed near their residence

Table -3 Food safety knowledge among the selected home makers

Questions on food safety knowledge	Response of the participants (n=200)			
	Correct		Incorrect	
	No	%	No	%
Kitchen soiled clothes spread microorganism	158	79	42	21
We can cook when we have cold, cough and skin rashes	66	33	134	67
Wearing apron while cooking is good	60	30	140	70
Washing hands immediately after handling raw meat decreases the chance of getting food poisoning	170	85	30	15
Rinsing fruits and vegetables under running tap water thoroughly can decrease the chance of food poisoning	155	77.5	45	22.5
A child is more likely than an adult to become sick from food poisoning	180	90	20	10
In the drawer labelled "meat" is the best place to store raw meat in the refrigerator	111	55.5	89	44.5
After cutting raw meat, washing the cutting board with soap and hot water lowers the chance of food poisoning	156	78	44	22
Improper use of microwave oven can result in undercooked food	89	44.5	111	55.5

Regarding food safety knowledge 67% of the respondents did not know that they should not cook when they have cold, cough and skin rashes but only 21% of them did not know that kitchen soiled clothes spread microorganism. Majority of the respondents (70%) did not know that wearing apron is good. On the other hand 90% of the participants knew that children are more likely to become sick from food poisoning than adults. Most of the respondents (85%) knew that washing hands immediately after handling raw meat decreases the chance of getting food poisoning and 78% of them knew that after cutting raw meat, washing the cutting board with soap and hot water lowers the chance of food poisoning. Around 55.5% of the participants did not know that improper use of microwave oven can result in undercooked food.

CONCLUSION

Food safety agencies should play an important role in the education to common people. Intervention programs and educational material about food safety practices should be available to the common people from many sources. Food safety messages should focus on the young females of a population with educational programs with relevant training. It is also of important to properly educate teaching staff in order to communicate food hygiene principles to children, and through them, to their parents.

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